

Cool Tunes Contest

• Video cards tested

• Digital

www.canadacomps.com

Toronto computes!

The technology lifestyle magazine

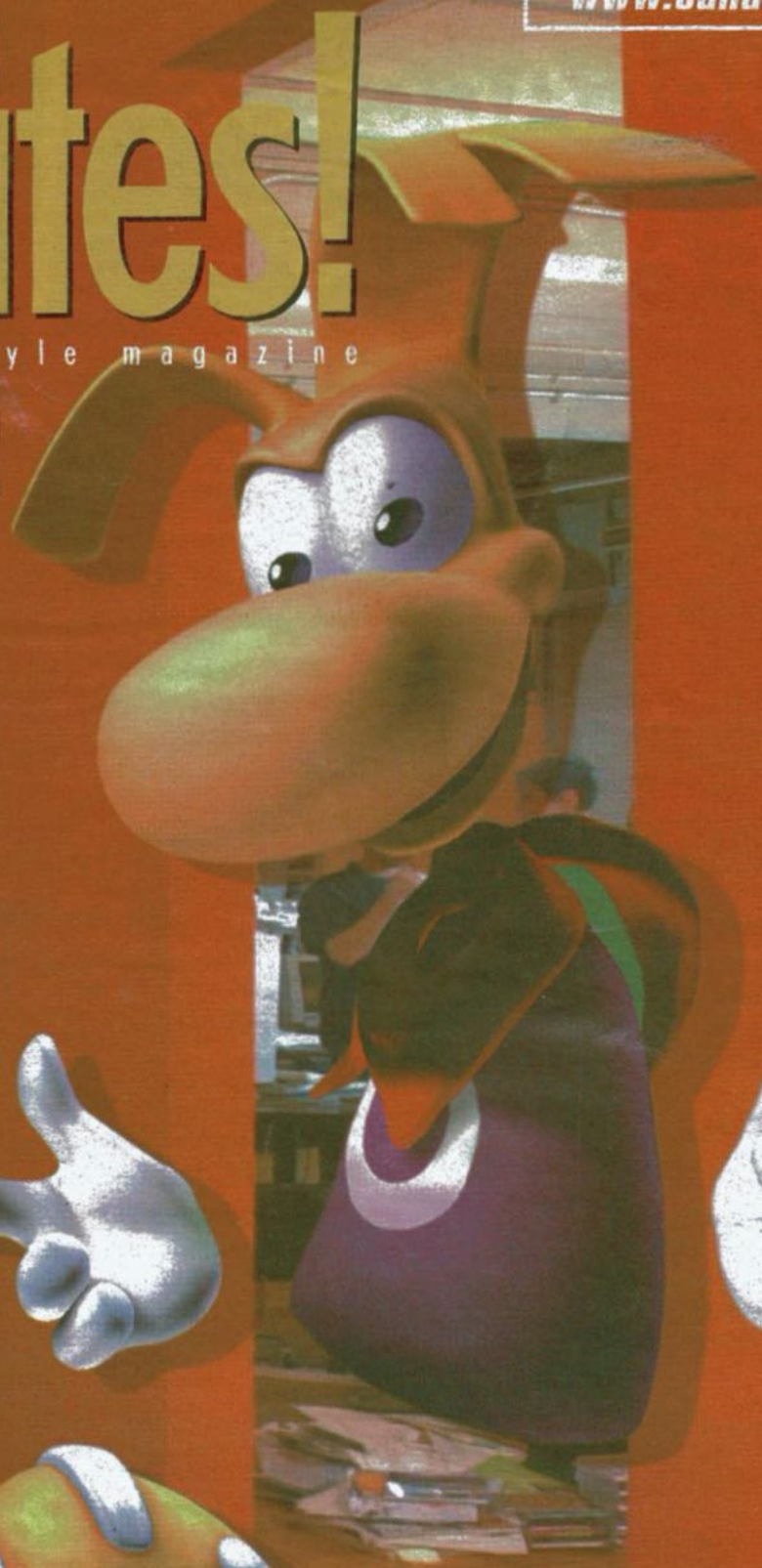
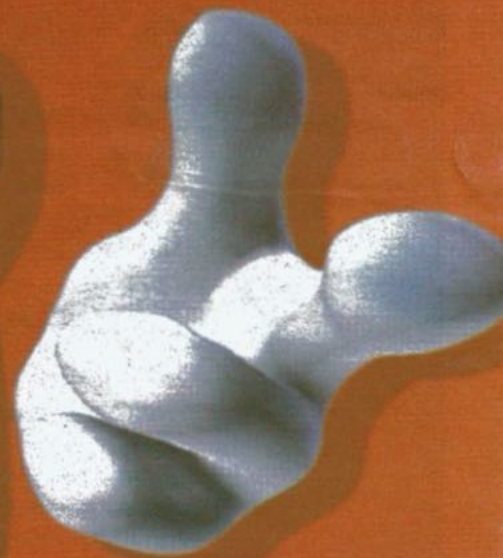
May 2002

FREE

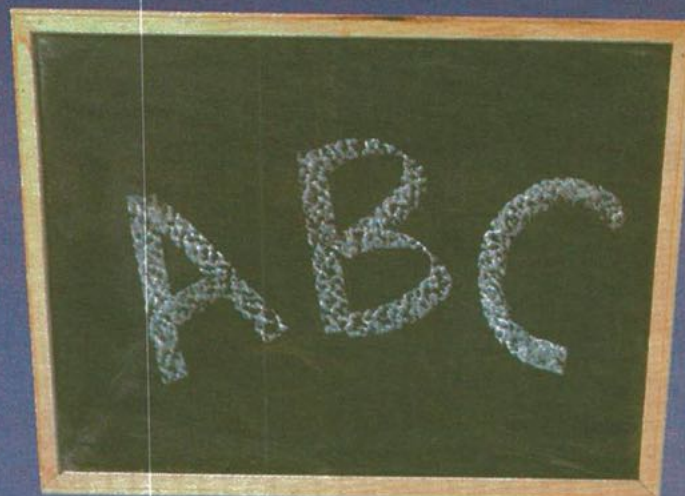
WE WALK THROUGH
Ubisoft
and **EA**

We take a spin
in the ultimate
flight simulator

Home video horrors



Internet Access as EASY as



3 Month Special

- UNLIMITED ACCESS
- v.90 56K Connection.
- 1 E-Mail Address.
- 10Mb Web Space.
- 3 month Maximum.

only \$10.99/mth*

1 Year Special

- UNLIMITED ACCESS
- v.90 56K Connection.
- 2 E-Mail Addresses.
- 20Mb Web Space.
- 1 year pre-payment.

only \$150/yr!

Residential DSL

- UNLIMITED ACCESS
- ALWAYS ON.
- 1Mb ADSL Service.
- 5 E-Mail Addresses.
- 20Mb Web Space.
- Regular Price \$29.95

just \$1**

Business DSL 1.5

- UNLIMITED ACCESS
- ALWAYS ON.
- Static IP Address.
- 10 E-Mail Addresses.
- 50Mb Web Space.
- 30hrs Free Dial-up!

from \$99.99/mth

Business DSL 3.0

- UNLIMITED ACCESS
- ALWAYS ON.
- Static IP Address.
- 5 E-Mail Addresses.
- Modem Rental Inc.
- 30hrs Free Dial-up!

from \$224.99/mth

Business SDSL

- UNLIMITED ACCESS
- ALWAYS ON.
- Static IP Address.
- 10 E-Mail Addresses.
- 50Mb Web Hosting.
- Equal up/down speed!

from \$199.99/mth

ISDN Service

Can't get DSL service at your business? NO problem! Echo Online can provide High Speed ISDN access to most locations.

from \$149.99/mth

Web Hosting

We've been hosting web-sites since 1995! With rate plans to suit your needs there is no better time to get on the net!

from \$8.95/mth

Server Co-Location

Host your server in our state-of-the-art co-location facility. Perfect for high speed, high security needs!

from \$249.99/mth

Domain Name Registrations

What's your name? Need a domain name, we can help!

- .com, .net, .org

only \$40/yr

- .ca

only \$50/yr

* Based on a quarterly pre-payment. New Subscribers ONLY. ** \$1.00 for the first month only. Each additional month is only \$29.95 per month



ECHO

OnLine

416-385-0459

<http://www.eol.ca>

Serving the GTA since 1995!

3464 Semenyk Court, Suite 101, Mississauga, Ontario L5C 4P8

(C) 2002 Echo Online Internet Inc. All Rights Reserved.

Barkeep! My glass has ordered another round!

By TOM VENETIS

Tired of waiting for the bar staff to notice that your beer glass is almost empty and a refill is in order? The Mitsubishi Electric Research laboratories in Cambridge, Mass. have developed a new beer glass that uses a microchip to signal the barkeep that it needs refilling. The technology is similar to the anti-theft tags used in shops to prevent people from walking out with the merchandise. Each beer glass is coated so that it can conduct electricity. The beer acts like a small power pack. When the glass is full it's packing a full electrical punch to the microprocessor (*Ed. - maybe it's just the alcohol talking.*). As you drink more beer, the electrical charge drops and at a certain level the microchip will signal the barkeep that the beer glass needs refilling. The only question now

will be whether to leave the tip for the bar staff or the glass.

Don't you know, Stimp? Comic books will ruin your mind!

While comic book sales have been slumping for years, Tampa, FL.-based Mark Alessi is betting that you will want to read your favourite comic on the Web. Publisher and CEO of CrossGeneration Comics, he believes that his comics on the Web (www.comicsontheweb.com) project is going to be the saviour of comic books. For US\$1 a month, subscribers to his service will have the latest issue of the company's many comic products delivered right to their computers. And we are not talking those spandex-clad, small-brained, muscle-bound comic book heroes of old. Nope, they're too old-fashioned for this new Internet comic book world. Instead, Alessi is giving his readers comics that

include science-fiction, fantasy, mystery and even the samurai epic. Tony Panaccio, the company's vice-president of product development, said Comics on the Web already has some 1,500 pages of content from about 70 issues. He said the technology behind it is Flash to reach as many people as possible.

Elvis lives!

Looks like you just can't keep the King down. An almost-famous Elvis Presley impersonator has won the right to keep his Internet domain name after being sued by a major New York sportswear company. Steven Hyken, a former "Gong Show" contestant, not only dons the King's mantle and name, but he sometimes goes by the moniker Johnny Blaze. He even has a domain name called JohnnyBlaze.com. And that is how he ran into a bit of trouble. It seems AST Sportswear has a line of trademarked clothing called - you guessed it - Johnny Blaze. AST complained that good ol' Johnny was just sitting on the domain name of JohnnyBlaze.com and not doing anything with it. AST took Johnny to the World Intellectual Property Organization (WIPO) to have him labeled a cyber-squatter and evicted from the address. But Johnny got lucky and the WIPO ruled that he could keep the name - even though if you go to the site all you will get is a link to another site sporting a bizarre pitch for what seems to be an automobile anti-theft device.

Hockey, Singapore style

Can't get enough hockey? How about following the inline hockey league in Singapore?

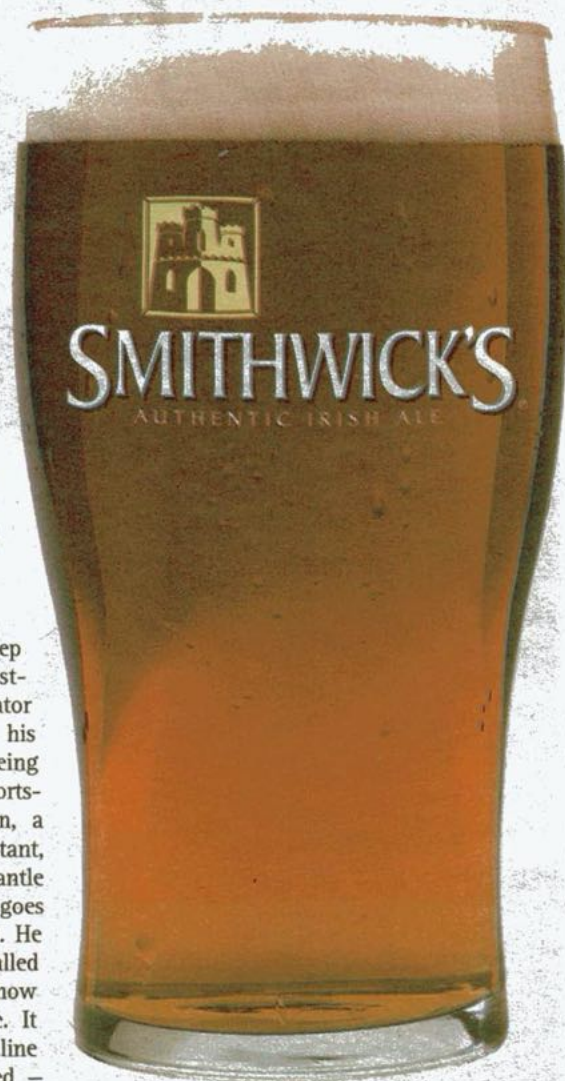
Right now, inline hockey, pretty much like ice hockey except that there is no ice and everyone uses rollerblades, is the hottest sport in Singapore right now. It's so big that there is a Web site (www.inline-hockey.com.sg) for fans to follow the teams and get all the latest player and game statistics. The site also provides a

forum, details of leagues and junior leagues, teams, classes and action pictures.


Seneca students to work with Oscar nominated animator

Five students enrolled in Toronto's famed Seneca 3-D Digital Animation Program are slated to work with Oscar-nominated animator Chris Landreth on a short film about the life of Ryan Larkin. Larkin was a famed animator who, in 1969, was nominated for an Oscar. By 2000, he was living on the streets of Montreal. Landreth and the students will create a 10-15 minute film that will chronicle Larkin's life and will use both live action and animation to tell the story.

The film is expected to take about a year-and-a-half to complete. Landreth was nominated for an Oscar in 1996 for his short film *The End* and won a Genie Award for his short computer-animated film *Bingo*, widely regarded as one of the pinnacles of 3-D animation. ♦



Cost cutting.
Control.
Convenience.



Let *us* help you lose that excess loan rate

Slim down your monthly payments today.

If you have an outstanding credit card balance or a loan at a rate that's too hefty, it's time to get motivated and shed those excessive interest charges. Comtech Credit Union has the perfect plan to help you "get fit" fast!

With our Transfer-In application, we'll consolidate your current credit card debt or loans to our "lowest rate" Line of Credit. It's a quick, simple way to improve your cash flow and save hundreds of dollars a year!


Apply before April 30, 2002 and you'll automatically qualify to win 1 of 10 \$50 Gift Certificates from Sportchek!

It's easy to join Comtech Credit Union!

*No purchase necessary

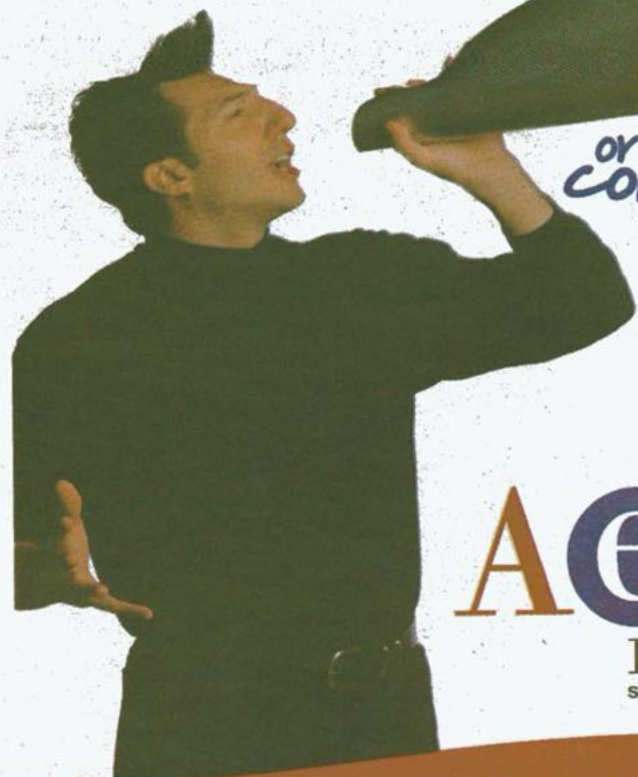
If you're in a communication technology-related industry, benefit from a full service financial institution that understands your specific needs. Call 1-800-209-7444 or visit www.comtechcu.com for an online application.

21797914



where your dreams matter

are you connected?



or well connected?

AEI
internet
since 1993

HighSpeed Access

Call us to find out why our service is better than cable

Residential

1Mbps Dedicated ADSL Service

\$29.95/month

includes:

- E-mail account w/10MB Space
- Dial-in account 10hrs/month
- High Speed Always on connection
- Access to over 50,000 news groups

Business Solo

1Mbps Dedicated ADSL Service

\$69.95/month

includes:

- 5 E-mail accounts (abc@yourdomain.com)
- Dial-in account 20hrs/month
- 20Gb Data transfer

Business LAN

1Mbps Dedicated ADSL Service

\$195.00/month

includes:

- High Speed ADSL Modem
- Router with Firewall
- Virtual Domain Web Hosting (www.yourdomain.com)
- 40 MB Web Space
- 20 E-mail accounts
- 1 unlimited Dial-in account

Business LAN +

2.5Mbps Dedicated ADSL Serv.

\$395.00/month

includes:

- High Speed ADSL Modem
- Router with Firewall
- Virtual Domain Web Hosting (www.yourdomain.com)
- 100 MB Web Space
- 50 E-mail accounts
- 1 unlimited Dial-in accounts

To sign up or for info.:

www.aei.net

E-Mail: info@aei.net

Montreal: Tel: (514) 284-4452
Ottawa/Hull: Tel: (613) 688-0830

Quebec: Tel: (418) 266-0581
Toronto: Tel: (416) 640-1611

Toll free: 1-877 305-4155

Residential/Business Dialup

\$4.95 - 10 hours/month OR **\$49.50/year (\$4.12/month)**

\$9.95 - 40 hours/month OR **\$99.50/year (\$8.29/month)**

\$14.95 - 100 hours/month OR **\$149.50/year (\$12.46/month)**

\$22.95 - unlimited * OR **\$229.50/year (\$19.12/month)**

* Based on Intermittent usage

includes:

- 56k v.90 access
- No busy signals
- Digital ATM backbone
- Instant account creation and system configuration for immediate surfing
- E-mail account w/10MB Space
- Access to over 50,000 news groups

2
FREE MONTHS
WITH YEARLY PREPAYMENT

ISDN Dedicated Line

includes:

- ISDN Router
- Web Hosting (www.yourdomain.com)
- 10 MB Web Space
- 5 e-mail accounts

64 kbps \$195.00/month
128 kbps \$390.00/month
256 kbps \$575.00/month

Web Hosting

Introductory
\$29.95/month
\$299.50/year

- Free domain registration if you pay yearly
- Domain name (www.yourdomain.com)
- 10 MB of web space
- 5 E-mail accounts (abc@yourdomain.com)
- No bandwidth transfer fees
- 24/7 access to your web account

Intermediate
\$39.95/month
\$399.50/year

- Free domain registration if you pay yearly
- Domain name (www.yourdomain.com)
- 40 MB of web space
- 20 E-mail accounts (abc@yourdomain.com)
- No bandwidth transfer fees
- 24/7 access to your web account
- Microsoft FrontPage 2000 extensions

Expert
\$59.95/month
\$599.50/year

- Free domain registration if you pay yearly
- Domain name (www.yourdomain.com)
- 100 MB of web space
- 50 E-mail accounts (abc@yourdomain.com)
- No bandwidth transfer fees
- 24/7 access to your web account
- Microsoft FrontPage 2000 extensions

E-Mail only
\$9.95/month
\$99.50/year

- Domain name registration/transferring and routing of E-mail only
- 10 MB of disk space
- 5 E-mail accounts with email redirection (abc@yourdomain.com)

E-Commerce

Call us for details

Toronto was blessed with a week of unseasonably warm weather in mid-April with temperatures peeling in the low 30s. Some people called this a sure sign of global warming. Others dismissed it as a freak aberration of weather. We did get snow a few days after this warm spell, after all. During this warm spell I found myself lounging in my backyard – basking in the sunlight with a cold beverage in my hand. I was surveying my domain, as it were, and making a mental list of all the projects I had to complete.

For sure there was a lot of yard work. Although the winter was mild there were many things that our yard needed. The list seems endless – rain barrels needed to be installed, things needed to be uprooted, new things need to be planted, dead branches should be pruned, etc. Looking at my garage I knew that there was work lurking inside. Although I had already taken my motorcycle out for a few rides there were still some chores that had to be done for the bike to be in optimum shape.

Inside the house, in my basement office, was perhaps the biggest job of all. I've been accumulating parts since February for a fast and reliable workhorse computer. I have the Dell Dimension 4300 computer that I use as a test bed for different software packages and configurations but I felt that I needed a second computer that would not be polluted with various settings, conflicting dll files and remnants of programs erased long ago. The computer had already been assembled with the help of a friend. A faulty motherboard was found and swapped for one that worked properly. I want the computer to have dual monitor support but the



Ethernet card. I have to install the printer drivers, I have to install a FireWire card. But then again, I might just use the Pinnacle card that gives me FireWire for DV but not for drives. Decisions, decisions. I still need to get a CD-RW for this computer, although I might just use the external one I have hooked up to my Mac. More decisions.

A new computer is much like a fertile untillied piece of ground. There are many options – each good, each right, and any will give satisfying results when the time comes. In some ways making the decision of what to do is more intriguing and takes up quite a bit of time.

After some more contemplation in the warm sun I got up and made a final decision. I'll plant onions in the back by the compost.

Nestor Gula can be reached by e-mailing nestor@tcp.ca ♦

Reader Feedback

What about MP4?

Geoff Martin's article on digital audio (April 2002) formats was very informative, but to my surprise, he left out the one that would seem to have the best chance of taking over the music scene. As I understand it, MP4 stores music and/or video in a format that can be reproduced as well as MP3, but on average takes 11 times less space. Microsoft's Media Player can already play this format, as can several other players now available or about to be available very soon.

Richard Dinning

Not so simple solution

As a DSL user, I always love to see

Rogers make a mess of their business. I don't know anyone who has had good service from Rogers. Sorry to burst your "simple solution" bubble "Rogers makes another boo boo", (April 2002) but having Rogers change their IPs more frequently ain't going to fix the problem. What do you need you run an FTP server? Simple – a static IP? Nope. Anyone can run an FTP/Web/e-mail server from his or her PC.

There are free dynamic DNS services out there that allow users of DHCP IP addresses to run these services. Just install their software and voila!

They point your domain name to your current IP address automatically.

Jason Little

Timeline to be established

My name is Dana Harris and I work for Fleishman Hillard on behalf of Pressplay. You featured an article (March 2002) that announced that Pressplay would be launching its service in Canada in April.

We just wanted to call to your attention to the fact that this information is not accurate.

While Pressplay is committed to expanding in markets outside of the U.S., beginning with Canada and continuing in European regions after that, the company has not yet determined a specific timeline. It does expect to announce one sometime this year.

Dana Harris



Letters on issues raised in the paper or general computer topics are welcome. Please be brief. We regret that we are unable to look up stories from past issues, suggest products, or solve all your computer problems. All correspondence must include your full name in addition to your e-mail or snail-mail address. Letters may be edited for space or content.

The Editor Toronto Computes!

625 Church St., Suite 600, Toronto, ON M4Y 2G1 tletters@tcp.ca

Letter of the Month

For his letter this month, Richard Dinning wins a copy of *Tony Hawk's Pro Skater 3*. This newest installment in the *Pro Skater* series lets players go online to play with up to eight players at a time. Players can take part in many different multiplayer events, including Capture the Flag, Control the Zone and Keep Away.



Toronto computes!

General Manager

Dick Peters

CCP Editorial Director

David Tanaka

Editor

Nestor Gula, nestor@tcp.ca

Managing Editor

Chris Talbot, chris.talbot@tcp.ca

Contributing Editors

Lynn Greiner, Kevin Linfield, David Rosen,

Marc Saltzman, Alan Thwaites

Copy Editor

Shariene Myers

Art Director

Helga Stolt

Online Editor

Jessica Freeman

Production/Distribution Director

Maxine Lewis, maxine.lewis@tcp.ca

Production Supervisor

Sylvia Gaertner

Production

Chris Brockley, Steve Stoner, Abi Benjamin,

Michelle Pericoppi, Lara Bazant

IT Department

Steve Quinney, Dan Wojcikiewicz

National Sales Manager

Ian Harling, ian.harling@tcp.ca

Advertising Sales Manager

Rob Crawford, rob@tcp.ca

Marketing Manager

Natalia Nosovskaya, natalia.nosovskaya@tcp.ca

Advertising Sales

John Chasson, Scott Piccolo, Ralph Ventriglia

Advertising Coordinators

Donna Goddard, donna@tcp.ca, Karen Samuels, karen_samuels@tcp.ca

Classified Sales

Dorina Eng, dorina@tcp.ca

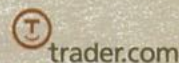
Circulation

Tracy Magee-Graham

Distribution

Gabriella Dan

Toronto Computes! is a
Trader.com publication



About the cover

Our May cover was designed by Chris Brockley.
Photo courtesy UBSoft.

Toronto Computes! is published monthly by Canada Computer Paper Inc.
under licence from Canada Computer Paper Inc.

Canada Computer Paper Inc. Corporate Office
625 Church St., Suite 600, Toronto, ON M4Y 2G1
Tel: (416) 923-4200 Fax: (416) 923-5394

Copyright 2002
unless otherwise specified.

Subscriptions

subscriptions@tcp.ca
1-800-465-3517 x 1273
Subscriptions: \$17.77 (includes GST) a yr., \$27.77 for 2 yrs., or \$47.77 for 3 yrs.
U.S. subscriptions: US\$75, Overseas subscriptions: Can\$135

Mail cheques or money orders (payable to Toronto Computes!) to:

Toronto Computes!
625 Church St., Suite 600, Toronto, ON M4Y 2G1
Tel: (416) 923-4200 Fax: (416) 923-5394

Canadian Publication Mail Sales Product Agreement #0169021

Printed in Canada ISSN 297433

Toronto Computes! is distributed free through hundreds
of stores, restaurants & boxes around Metro Toronto.

CCAB

The publisher reserves the right to refuse sexist, racist, or otherwise offensive
advertising. The publisher also reserves the right to be the final judge of what is
appropriate. Information in both editorial and advertising is believed to be true,
however, the publisher assumes no responsibility for errors or omissions.

Announcements

pressreleases@tcp.ca

June 2002 Issue: Travel Issue

Ad deadline: Tuesday, May 21

Distribution: Wednesday, May 29

The full text of TCI is available online at: www.canadacomputes.com



Perfect for business servers. Priced to please.

Your server will feel right at home with Colocation Service.

Finding a good, reliable home for your state-of-the-art server can be difficult. After all, housing a server in your own office can lead to problems such as power interruptions and downtime, insufficient bandwidth, less than perfect security, costly storage facilities and maintaining a staff for 24-hour monitoring. In the end, it can cost you a lot more than you may have thought. But with Colocation Service from AT&T Canada, your server will have a safe, reliable place to stay without a large price tag.

AT&T Canada's Internet Data Centre facilities boast:

- 24/7 technical support
- OC-12 redundant, self-healing network
- Uninterruptible power with diesel back-up generator
- Round-the-clock monitoring
- Secure facilities
- Service uptime guarantee of 99.5%¹
- Video surveillance
- Liebert environmental climate control system

Get optimum performance, ultimate protection and bottom-line savings with AT&T Canada Colocation Service.

Move your server to a better place. Trust Colocation Service from AT&T Canada for a reliable, cost-effective solution.

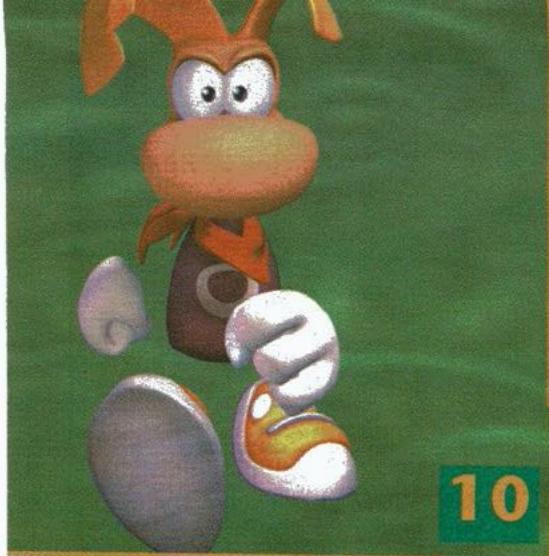
www.attcanada.ca/business

1 888 339-7852

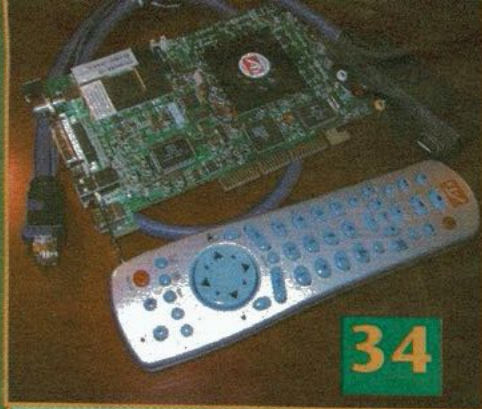


B O U N D L E S S

Voice Data Internet E-Business



10



34



52



58

c o n t e n t s

Features

- 10 A walk through UbiSoft studios
- 14 Behind the scenes at EA: The (re)making of *NHL*
- 16 Misconceptions about violence in games
- 16 Gaming: The horror
- 22 Flying Montreal's ultimate flight simulator

Reviews

- 34 Graphic cards for game hounds
- 41 Setting up a virtual cockpit
- 42 Ctrl-Alt-Belkin
- 44 E3 preview 2002
- 45 Gaming with balls

CreativeTech

- 26 Musical Odyssey: Sounding off with MIDI
- 28 Digital Shots: Getting and making prints
- 29 Tested: Fujifilm FinePix 2800 Zoom
- 30 Adventures in digital video: Home movies don't have to elicit horror
- 33 Soundcards: 16-bit and beyond

Regulars

- 6 Letters
- 8 News Briefs
- 58 Kids: Get magnifying glass, start sleuthing ...
- 58 Kids: Retreating in time with Nancy Drew
- 61 Linfield's Line by Kevin Linfield
- 62 Game On! by Marc Saltzman
- 64 Telecomments by Lynn Greiner
- 65 The World is my Cubicle by Alan Thwaites
- 66 MacRant by David Rosen
- 70 Profile: Potentially Magic — Carla Hartsfield

Cyberplay

- 46 Cyberbriefs
- 48 Heroic action for would-be heroes
- 50 Breaking the law in *Hooligans: Storm Over Europe*
- 52 *Gothic* introduces a strange, new world
- 53 A gaming diversion
- 54 *Black Thorn* puts a different twist on FPS games
- 56 Glasses pop games into 3-D
- 57 *Jedi Outcast* continues *Star Wars* saga
- 57 *Starfighter* tries to live up to *X-Wing Alliance*

t o r o n t o c o m p u t e s !

May 2002

Have we got a contest for you! Win cool stuff in our Cool Tunes contest on page 26, or in our Digital Design Contest on page 63.



FREE UPGRADE TO 1.8 GHZ W/512KB L2 CACHE



Optional Dual CD Drives

□ □ □ □ □

\$2,899

OR LEASE FOR \$104/ MONTH*

The P4

Pentium 4 Notebook

ANGEL 2600 GIGANOTE

- 15.1" TFT Active Matrix SXGA LCD 1400x1050
- Intel Pentium 4 1.7 GHz, Up to 2.4 GHz
- 256 MB DDR RAM 266 MHz, Upgradable to 1 GB
- 400 MHz FSB, PC 266
- 20.0 GB Hard Drive, Upgradable to 30/40/60 GB
- 64 MB ATI M7 Radeon 7500 Video Chip 4X AGP
- 8x DVD ROM, Upgradable to CD-RW or DVD/CD-RW Combo
- Built in 56K V.90 Modem & 10/100 Ethernet LAN, Optional built-in Wireless LAN
- Sound Blaster Pro Compatible 3D Enhanced Sound with S/PDIF 5.1 CH Digital Audio
- S-Video TV Out, FireWire & 4X USB Ports
- Window XP Home, 98 SE, or ME & Angel Carrying Case

* OAC, 36 months term with \$10 buy back. 1st & Last required.

NOTEBOOKS



Only 3.9 Lbs !

ANGEL 1800N SLIMNOTE

- 12.1" TFT Active Matrix LCD XGA 1024x768
- Intel Mobile Pentium III-M 933 MHz Processor, Upgradable to 1.0, 1.13 or 1.26 GHz
- 20 GB Hard Drive, Upgradable to 30/40 GB
- 256 MB SD RAM, Upgradable to 1 GB
- 32 MB Intel Video Chip 4X AGP
- External 8X DVD ROM & 3.5" Floppy Drives
- Upgradable to CD-RW or DVD /CD-RW Combo
- Sound Blaster Compatible sound system
- Built-in 56K V.90 Modem & 10/100 Ethernet LAN
- Optional built-in GPRS Or GSM Modem I
- 3-4 Hour Smart Lithium Ion Battery
- Windows XP Home, 98SE, or ME & Angel Carrying Case

FREE UPGRADE TO PENTIUM III-M 1GHz

STARTING AT **\$2,599**

OR LEASE FOR \$93/ MONTH*

ANGEL 9200 POWERNOTE

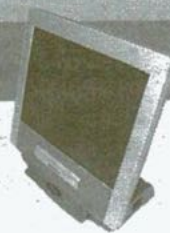
- 14.1" TFT Active Matrix LCD 1024x768
- Intel Celeron 1 GHz, Up to Pentium III 1.26 GHz
- 128 MB SD RAM, Upgradable to 1GB
- 10.0 GB HDD, Upgradable to 20/30 GB
- 8 to 64 MB Share memory Video Ultra 4X AGP
- Sound Blaster Compatible Audio
- 24X CD ROM, Upgradable to 8X DVD, CD-R/W or DVD/CD-RW Combo
- Built-in 56K V.90 Modem & 10/100 Ethernet
- S-Video TV Out and FireWire Ports
- Smart Lithium Ion Battery
- Windows XP Home, 98 SE, or ME & Angel Carrying Case

FREE UPGRADE TO 256 MB RAM OR DVD ROM

STARTING AT **\$1,799**

OR LEASE FOR \$65/ MONTH*

LCD PCs



ANGEL 3300 LCD PC

- 15.1" TFT Active Matrix LCD 1024x768
- Intel Celeron 1GHz, Upgradable to Pentium III 1GHz
- 128 MB SD RAM, Upgradable to 1GB
- 20.0 GB HDD, Upgradable to 40/60 GB
- 8 to 64 MB Shared Memory Video Ultra 4X AGP
- Sound Blaster Compatible Audio
- 24X CD ROM, Upgradable to 8X DVD, CD-R/W or DVD/CD-RW Combo
- Built-in 56K V.90 Modem & 10/100 Ethernet
- FireWire & PCMCIA Expansion slots
- Keyboard, Mouse & Windows ME or XP

FREE UPGRADE TO 256 MB RAM OR DVD ROM

STARTING AT **\$1,799**

OR LEASE FOR \$65/ MONTH*

P III 1 GHz, 256 MB RAM, DVD ROM, 40 GB HDD

1GHZ SPECIAL **\$2,199**

OR LEASE FOR \$79/ MONTH*

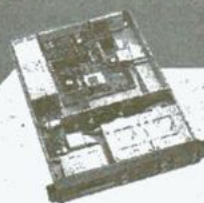
ANGEL 3500 LCD PC

- 17" TFT Active Matrix LCD 1280x1024 (Like 19" CRT)
- Intel Pentium 4 1.7 GHz, Upgradable to 2.4 GHz
- 256 MB SD RAM, Upgradable to 1GB
- 40.0 GB HDD (7200 RPM)
- 8x DVD ROM, Optional 2nd CD-ROM Drive, Upgradable to 8X DVD, CD-R/W or DVD/CD-RW Combo
- Built-in 56K V.90 Modem & 10/100 Ethernet
- Sound Blaster Compatible Audio
- Built-in Speaker
- Video-In & optional TV Tuner
- FireWire & PCMCIA Expansion slots
- Keyboard, Mouse & Window XP, 98 SE or ME

STARTING AT **\$2,899**

OR LEASE FOR \$104/ MONTH*

SERVERS

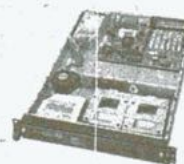


EC1016 SERVER

- 1U Rackmount Chassis
- Intel Celeron 1 GHz
- 256 MB SD RAM PC133
- 1x40.0 GB Hard Drive, Support 2 Hard Drives (For Up to 160 GB)
- 1.44 Floppy Drive & CD-ROM
- Built-in 10/100 Ethernet Card - RJ45 support WOL function
- Accept 1 PCI add-on card

STARTING AT **\$1,299**

OR LEASE FOR \$47/ MONTH*



EC1022 SERVER

- 2U Rackmount Chassis
- Intel Pentium III 1GHz, Upgradable to 2.6 GHz
- 512 MB SD RAM PC133, Upgradable to 1.5 GB
- 4x40.0 GB HDD 7200 RPM (160 GB)
- 1.44 Floppy Drive & CD-ROM
- Built-in 10/100 Ethernet Card - RJ45 support WOL function
- Integrated RAID 0,1
- Accept 3 PCI add-on card

STARTING AT **\$2,399**

OR LEASE FOR \$86/ MONTH*

ACCESSORIES



UNIVERSAL CAR or A/C ADAPTORS
Works with most notebooks

\$129

FIREWIRE EXTERNAL DRIVES



CD-RW 24x10x40
Reg. \$399
\$299

PIONEER A03 DVD-R
Reg. \$1299
\$899

FIREWIRE PCMCIA CARD

Window 98, 2000, Me



Reg. \$149
\$99

UNIVERSAL PORT REPLICATOR



Reg. \$199
\$149

GPS PCMCIA CARD



Reg. \$399
\$299

CELLULAR READY H/W PCMCIA MODEM

Ositech Communication



Reg. \$199
\$129



Proudly Assembled in Canada

Build your Notebook Online @ www.angelcomputer.com

Angel Notebooks are Assembled in Canada by: Canadian Advanced Industries Ltd.

405 Britannia Rd. East, Unit 11, Mississauga, ON Canada L4Z 3E6

Toll Free: 1-888-32ANGEL Fax: (905) 501-8376 E-mail: halo@angelcomputer.com

905-501-8375

For Toronto East call DSG Laptops (905) 428-1934 • Downtown Toronto call Notebook Universe (416) 366-6683 • Richmond Hill call PC Tek (905) 770-4900 • Maple call Global Component (905) 417-1722

VIF Internet

The Internet simplified

14.95\$ per month

Unlimited Access

With yearly membership payable on activation

9.95\$ per month
15hrs per month

+1\$ each additional hour

19.95\$ per month
Unlimited Access

Monthly billing

Each subscription includes:

- No activation fee
- All inclusive membership with: 5Mb Web Site, 6 e-mail accounts
- Fast connection, news, irc/icq, MP3
- Blazing fast 56k X2 V90 lines
- No busy signal
- Fully digital network
- Friendly technical support
- Service bilingue



Web Hosting starting at 9.95\$ per month

Domain names registration : 15.00\$

Residential High Speed Access

Commercial High Speed Access



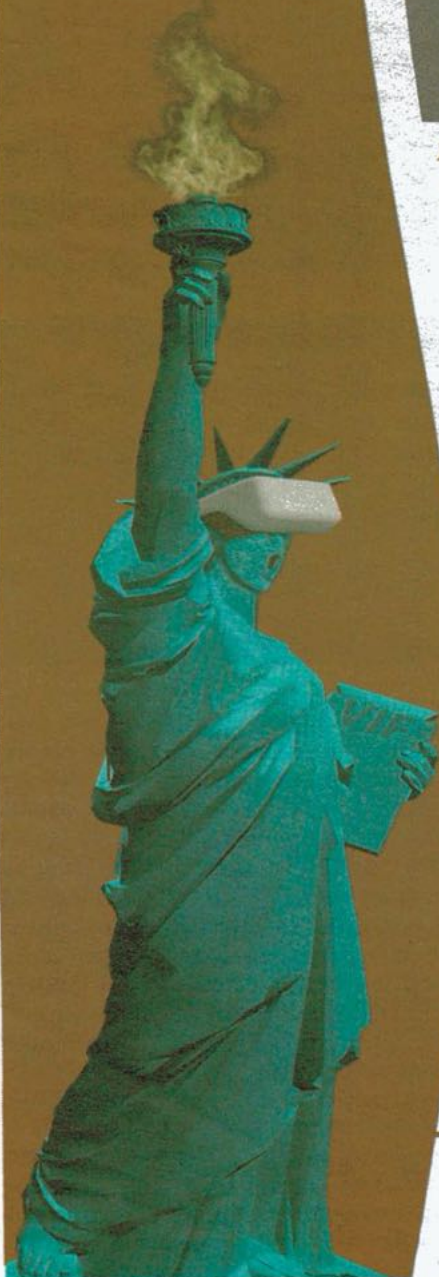
Call now and get

**connected
in 5 minutes!**
1-888-321-3737

514-353-9988

Come visit our web site <http://www.vif.com>

Montreal - Quebec - Hull - Ottawa - Toronto



A walk through UbiSoft studios

By NESTOR GULA

For some, a dream job would be to work for a game design studio. Conceptualizing, creating and playing games for a living sounds pretty sweet. But if you really think about it, is it really such a dream job?

Just look at the complexity and detail of today's games. Real-time strategy games are extremely detailed with thousands of options and scenarios available to a solo player. Shooter games are incredibly detailed. Simulation games are brilliantly sophisticated and do everything to simulate flight or driving except transferring the relevant g-forces to the player. Then there's the aggravation of a snotty, know-it-all reviewer complaining that the artificial intelligence is not up to snuff or some other aspect of the game does not come close to perfection in his or her mind.

All the detail included in today's games does not come easily or automatically to the game developers. First off, the size of a game is huge. Games are much larger than almost any sophisticated productivity software. All this has to be programmed. Then all this programming has to be tested so the aforementioned reviewer does not fall into a catatonic snit.

Paying UbiSoft a visit

On a recent walk through the UbiSoft headquarters in Montreal, I could see the number of people it takes to create games. Located in a funky part of Montreal, there are a lot of cool things about the UbiSoft headquarters and design studios. The office is in an old warehouse and has 12-foot ceilings and gorgeous hardwood floors throughout. In terms of location, there are few better spots in Montreal. Not only is the place about a five-minute walk from the Metro Station, but it is also a stone's throw from the St. Viateur Bagel Shop — the source of the best bagels in Montreal and perhaps the world. For lunch, the best souvlakis can be had at Arahova's, also a few steps away.

Such a cool locale attracts a lot of talent and the UbiSoft offices have 450 people working full-time. Most of these people are developing games, either doing the hard programming or working on the design, animation, 3-D modeling, sound and testing. Most of the people who work here are guys — I'm told it's about 85 per cent men. The average age of the employees is 26. Some of these pups have never shaved by the looks of it. But even though I was there early on a Monday morning, all of the workstations were occupied by people staring diligently into 21-inch screens. I did not see anyone surfing the Net. There was serious work afoot.

Not all fun and games ...

Creating games is serious business. It is widely held that the computer gaming industry — this includes all the console games, as well — is larger than the Hollywood film industry. While I've never seen the figures that prove this point, UbiSoft's revenue (turnover) for the 2000-2001 fiscal year was 259.8 million euros

(US\$235.6 million). The company is projecting sales for 2005 to reach US\$1.5 billion. Not bad for a company that started in 1986.

The main source of new game concepts comes from licensing agreements signed between the game developers and other creative types. In UbiSoft's case, licence agreements were reached with Sony for *Crouching Tiger, Hidden Dragon*, Steven Spielberg for a game based on *E.T.*, Disney for *Tarzan* and so on.

Another source for new games is found in revamping and updating old titles. Even though UbiSoft might buy the licence or recreate an older game, the game itself will go through a conceptualization phase, which involves senior people from the animation, 3-D modeling, artistic and programming studios. A large plan of action is prepared and then the game gets approval to be produced.

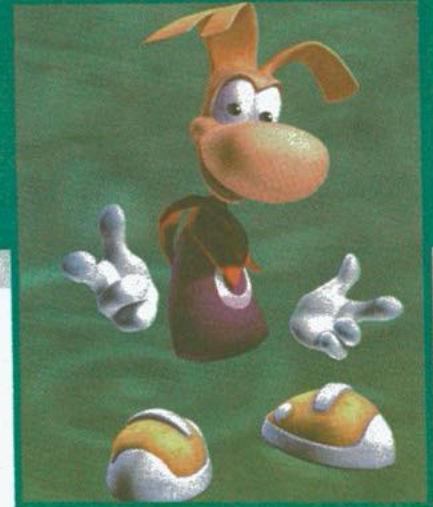
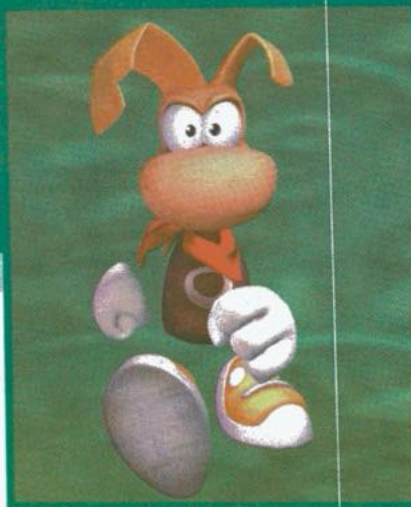
As expected, programming a game is a large part of the process. To save time, certain decisions are made in the planning stages that save time in the end. Dominic Guay, a lead programmer, said that "a decision is made at the initial planning stages, where it is determined what platforms the game will appear on." He adds that it makes a difference in the programming of the game as a whole. "All games are designed on a PC," he said. "Creating versions for the Sony PS2 is the most difficult, while making versions for the Xbox and GameCube is easier." He has not had any experience creating games for the Macintosh, so could not say if there was a big difference between creating games for the new OS X or for the older operating systems.

This stage also involves sound, animation, 3-D modeling and many other bits that make today's games so rich and complex. While the animation and 3-D folks work side-by-side with the programmers, the sound department has equipment that would make a few professional studios blush with envy. It even has a special studio that is just used for creating sound effects. The Canadian UbiSoft studio also has a sophisticated video department, which makes videos incorporated in the games, as well as videos for corporate and promotional purposes.

It is interesting to note that all these people get their batteries recharged after the completion of a project (games take between 18 to 24 months to complete on average.) They are given refresher courses and time to explore new dimensions of their craft before being given a new project.

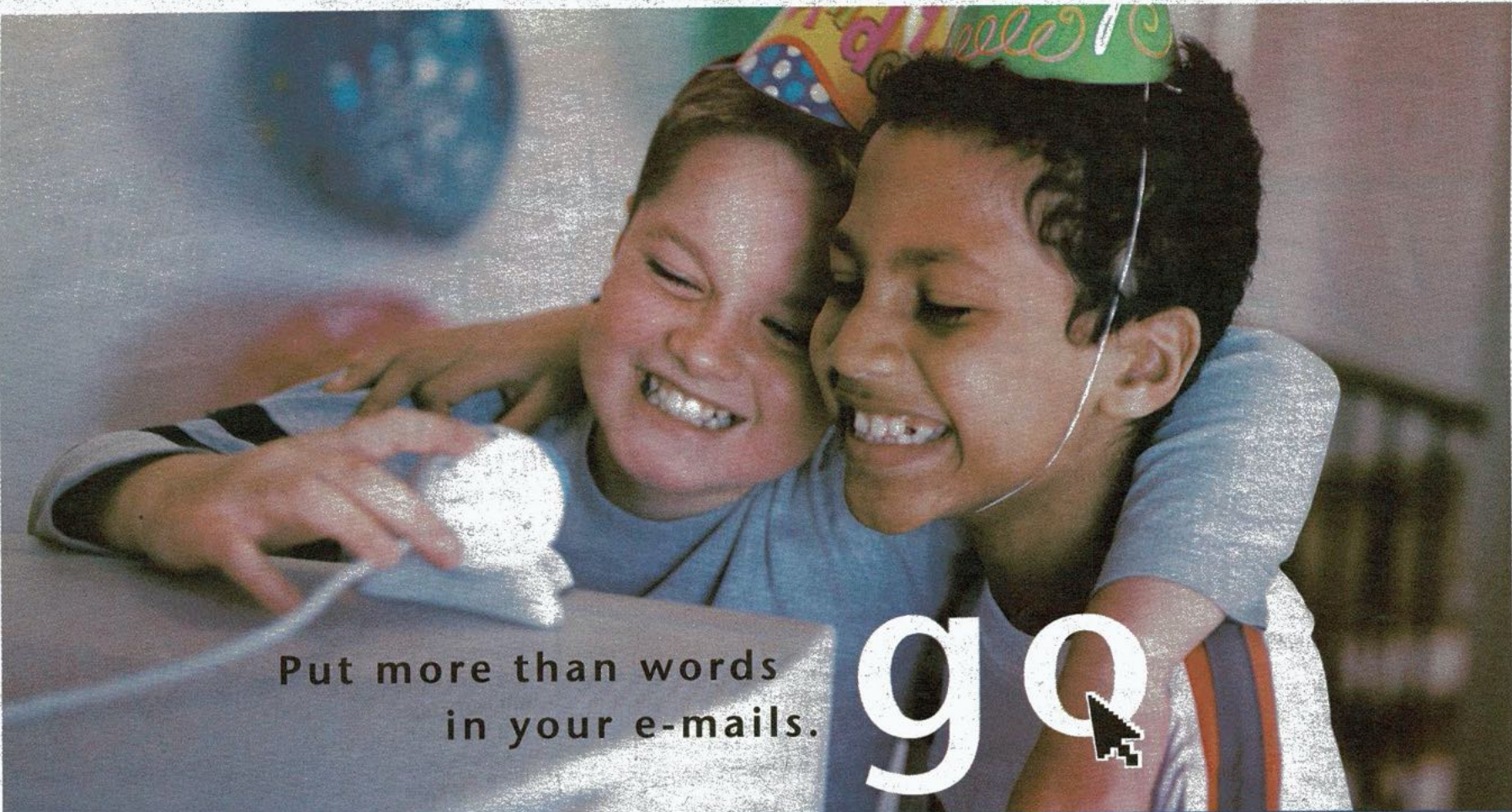
Even play is work

After the games go through the production phase, they are given to the people in testing. Ordinarily there



are about 100 people who work here. During the summer, 50 more people are brought onboard to put the games through the ringer. Console games are relatively easy to test, since there are not too many complications. PC games present the most problems. The game has to be tested on different motherboards, using all types of videocards, soundcards, controllers (steering wheels, gamepads, joysticks from all manufacturers) and also with other cards, such as Ethernet cards, installed to test for conflicts. Yes, you are playing games, but it is tedious work, after all — you have to write reports on what you did and record the results. There is no set time for testing. Children's games take very little time to test because they are not complicated. UbiSoft's *Rayman Arena* spent one whole year in the testing department.

After being shown the work it takes to create a game at UbiSoft, I am convinced that it is not a dream job for me. I'd rather review the finished product. ♦



Put more than words
in your e-mails.

go

Sympatico™
High Speed Edition



Order Now and get a
FREE Webcam

\$24⁹⁵ /month **FOR THE FIRST 3 MONTHS*, PLUS FREE SELF-INSTALLATION KIT****

Right now, Bell Sympatico High Speed Edition™ Internet service can help give you an opportunity to put some life into your e-mails. Order today and you'll receive a FREE Logitech® Webcam!† Put your e-mails in motion, so your friends and family can see you online. Your baby's first steps... blowing out your birthday candles... the dog's new tricks... you can share it all with your FREE Webcam. Sympatico High Speed Edition service lets you enjoy Internet access that's always fast, even during peak hours‡. And, you can surf and talk at the same time, so you don't need a second phone line.

Plus, when you order online, you'll get your fourth month FREE!

Call 1 877 567-5021 today.

Visit www.bell.sympatico.ca/gofast

or visit any Bell World store near you.



21801914

Service only available to residential customers where technology permits. Some conditions and restrictions apply. The one-time activation fee of \$29.95 is currently waived. All offers advertised herein are subject to cancellation or change without notice. *Offer available from April 1 to June 30, 2002, and limited to new Bell Sympatico High Speed Edition subscribers. Monthly rate includes access and modem rental only. Other charges may apply. The then current applicable monthly rate will take effect in the fourth month. The current monthly rate for new Bell Sympatico High Speed Edition subscribers is \$44.95. Monthly rate is subject to change and does not include applicable taxes. Except for the Sympatico High Speed Edition free fourth month online offer, this offer is not available in conjunction with any other Bell Sympatico offer. **Installation does not include cost to correct any wiring configurations in customer's residence. Technician installation is available for \$99 plus applicable taxes. †Or \$35.00 in Bell Gift Certificates. See conditions at www.bell.sympatico.ca. Webcam may not be as shown. Use of the Webcam is subject to Logitech's terms and conditions, including minimum system requirements. Additional hardware and/or software may be required in order to use the Webcam with Bell Sympatico High Speed Edition Internet service. Offer only available in Ontario to new Sympatico High Speed Edition subscribers who order before May 31, 2002. Call for details. ‡Download speeds online can vary with Internet traffic, server or other factors. Sympatico and Sympatico High Speed Edition are trade-marks of Bell Canada; Logitech, the Logitech logo, and other Logitech marks are owned by Logitech and may be registered.

ELEVEN FREE UPGRADES

ELEVEN FREE UPGRADES FOR HORIZON AND/OR VISION

1 FREE UPGRADE TO PERFECTLY FLAT CRT MONITOR*

2 FREE UPGRADE TO MDG VISION DELUXE 320W CASE

3 FREE UPGRADE TO ATI RADEON VIDEO CARD WITH TV-OUT

4 FREE UPGRADE FROM LEXMARK Z-22 TO Z-32 PRINTER

5 FREE COREL SUITE WORDPERFECT, QUATTRO PRO, COREL PRESENTATIONS, AND MORE - RETAIL VALUE: \$248

MICROSOFT 2002 BUNDLE INCLUDED

FULLY INTEGRATED, EASY-TO-USE SOFTWARE BUNDLE O.E.M. VERSION.

SOFTWARE TITLE:

MICROSOFT ESTIMATED PRICE FOR RETAIL VERSION:	
MICROSOFT WINDOWS XP	\$309.00
MICROSOFT WORD 2002 (WORLD'S BEST-SELLING WORD PROCESSOR)	\$499.00
MICROSOFT WORKS 2002 (SPREADSHEET, DATABASE, CALENDAR...)	BONUS
MICROSOFT MONEY 2002 (INCOME, EXPENSE TRACKING, BILL PAYMENT)	BONUS
MICROSOFT ENCYCLOPEDIA 2002 (36,000 ARTICLES)	\$44.95
MICROSOFT PICTURE IT! PHOTO 2002 (EDIT PICTURES)	BONUS
MICROSOFT EXPEDIA® STREETS & TRIPS 2002 (ROAD MAPS)	BONUS

TOTAL PRICE FOR RETAIL VERSION: \$852.95

YOUR COST WITH MDG VISION OR HORIZON SYSTEM PURCHASE: \$0.00

6 FREE UPGRADE TO WIRELESS MOUSE FOR VISION PC

7 FREE UPGRADE TO WIRELESS KEYBOARD FOR VISION PC

10 MICROSOFT OFFICE XP PRO 30 DAY FREE TRIAL

FREE DVD CAPABILITY* WITH VISION PC PURCHASE



8 FREE 600W P.M.P.O. SUBWOOFER UPGRADE

9 FREE 7200 RPM HARD DRIVE UPGRADE

VALUE 1600 XP

INTEL® PENTIUM® 4 PROCESSOR 1.60 GHZ

- 128MB Memory
- 40GB Value Hard Drive
- 52x CD-ROM Drive & Floppy Drive
- Standard 104 Key Keyboard
- Standard Mouse
- 32MB 4xAGP Video
- 3D Audio PRO Sound
- MDG Mid Tower with Power Supply
- Amplified Stereo Speakers
- 17" SVGA Monitor
- Microsoft Windows XP
- FREE Internet on Cable Offer

\$989

SIX MONTHLY PAYMENTS: N/A

HORIZON 1600 D

INTEL® PENTIUM® 4 PROCESSOR 1.60 GHZ

- 256MB Memory
- 40GB Ultra ATA-100 Hard Drive **FREE UPGRADE TO 7200 RPM**
- 52x CD-ROM Drive
- Microsoft Intelli Keyboard, Floppy Drive
- Microsoft Intelli Scroll Wheel Mouse
- SAVAGE 4 32MB 4xAGP Video Card
- MDG ATX Mid Tower with Power Supply
- 3D Audio PRO Sound
- KOSS Stereo Speakers
- 17" Samsung Monitor 24hdp
- Microsoft Windows XP
- Microsoft 2002 Software Bundle
- FREE Internet on Cable Offer

UPGRADE OPTIONS:

- Genuine Intel® Motherboard
- ATI RADEON™ 64MB Video Card/TV-OUT
- Perfectly Flat 17" 20hdp Samsung Monitor
- MDG Vision Deluxe Mid Tower 320W

ADD \$95
~~ADD \$95~~ FREE
~~ADD \$145~~ FREE
~~ADD \$75~~ FREE

LAST WEEK: \$1297
THIS WEEK:

\$1242

SIX MONTHLY PAYMENTS: \$207.00

NEXT WEEK - GONE



MDG PCs USE GENUINE MICROSOFT® WINDOWS®
www.microsoft.com/piracy/howtotell

HOURS:

MONDAY - FRIDAY: 10:00am - 7:30pm, SATURDAY: 10:00am - 6:00pm

ROGERS or COGECO
INTERNET ON
CABLE SERVICE



Self-Installation \$80.00
Two Months Internet Service \$89.00
Total Retail Price: \$169.00
With MDG PC Purchase: \$0.00

MDG
www.mdg.ca

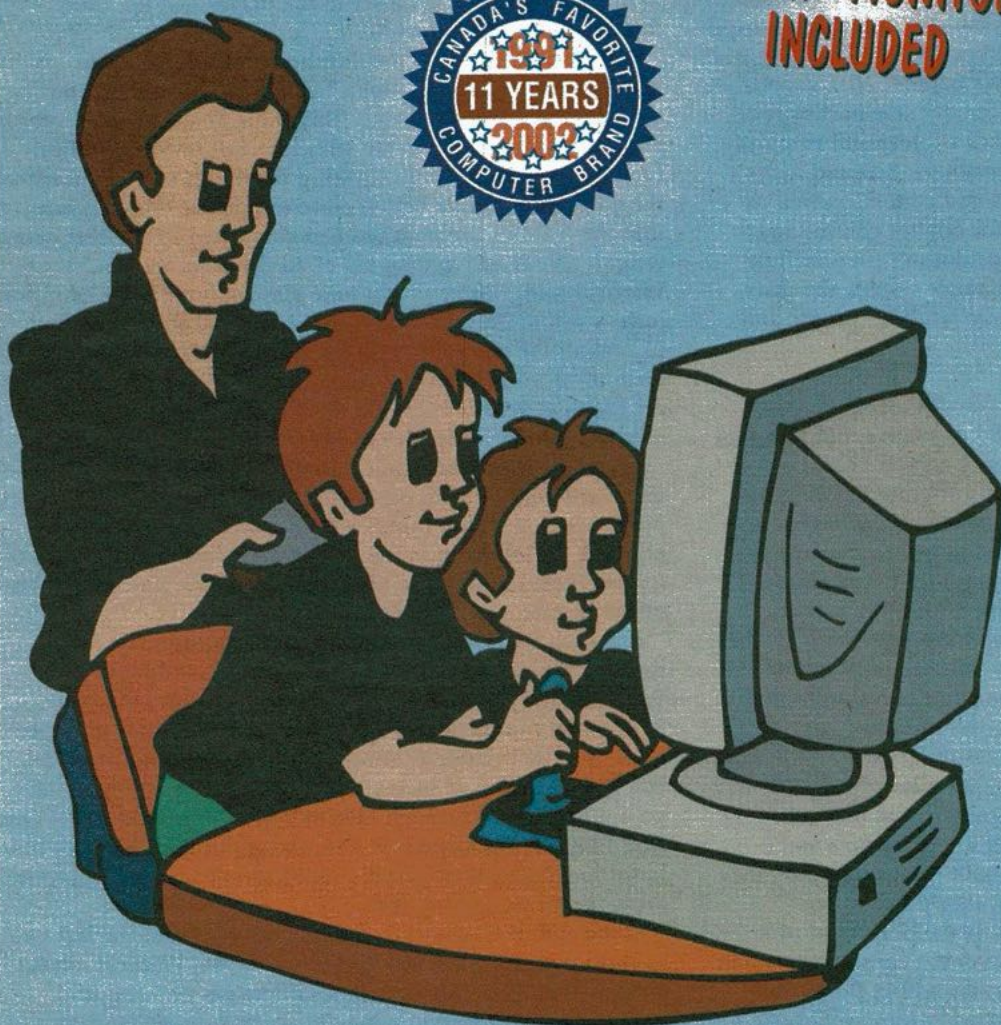
Taxes not included. Intel, the Intel Inside logo and Pentium are registered trademarks and Celeron is a trademark of Intel Corporation. All products 3% cash discounted, prices subject to error and change without notice. Systems may not be exactly as shown. Promotional offers can not be combined and claimed at the same time. *Six months no pay or six monthly payments options on approved credit only. ©Rogers Communications Inc. Used under license. Rogers Hi-Speed Internet is not available in all areas. Some price restrictions apply, including a \$10 extra surcharge per month for non-cable subscribers. Cable bill must be in good standing to apply. Available to new Rogers Hi-Speed Internet customers only and cannot have been a customer within the 90 day period prior to purchasing a qualifying MDG system. Customer is responsible for the cable modem. Immediate pick-up may not be available in every case due to overwhelming responses, rain check available. Can not be combined with any other offer. Limited time and quantities offer. Store hours may vary. *Free upgrade to perfectly flat monitor applies with Horizon system purchase. *Free DVD capability upgrade includes 4x4x24 CD/RW 8x DVD combo drive and applies to Vision 1600 only.

MDG

www.mdg.ca



**PERFECTLY FLAT
CRT 17" MONITOR
INCLUDED**



MDG PCs USE GENUINE MICROSOFT® WINDOWS®

www.microsoft.com/piracy/howtotell

VISION 1600

INTEL® PENTIUM® 4 PROCESSOR 1.60 GHZ

**IMMEDIATE
PICK-UP**

- Genuine Intel® Motherboard, 845 Intel® Chipset up to 3GB Memory support
- Intel® Rapid BIOS Boot, Six USB Ports (Two front), Six PCI Slots
- 256MB Memory
- 40GB Ultra ATA-100 Hard Drive
- FREE UPGRADE TO 7200 RPM
- 24x10x40 CDRW Drive & Floppy Drive
- Microsoft Internet Keyboard
- Microsoft Intelli Scroll Wheel Mouse
- ATI RADEON™ 64MB Video Card/TV-OUT
- MDG Vision Deluxe Mid Tower 320W
- SoundMAX 3D Sound Effects
- 600W P.M.P.O. Speakers with Subwoofer
- Perfectly Flat 17" .20hdp Samsung Monitor
- Microsoft Windows XP
- MS 2002 Software Bundle
- FREE Internet on Cable Offer

DDR MODEL: \$1537
• INTEL® DDR MOTHERBOARD
• 266MHz DDR MEMORY
• HD SILENT SEEK...

**LAST WEEK: \$1566
THIS WEEK:**

\$1442

**SIX MONTHLY PAYMENTS: \$240.33
NEXT WEEK - GONE**

VISION 2000 L

INTEL® PENTIUM® 4 PROCESSOR 2.0 GHZ

**IMMEDIATE
PICK-UP**

- Genuine Intel® Motherboard, 845 Intel® Chipset up to 3GB Memory support
- Intel® Rapid BIOS Boot, Six USB Ports (Two front), Six PCI Slots
- 256MB Memory
- 40GB Ultra ATA-100 Hard Drive
- FREE UPGRADE TO 7200 RPM
- 24x10x40 CDRW Drive & Floppy Drive
- Microsoft Internet Keyboard
- 16x DVD Drive
- Microsoft Intelli Scroll Wheel Mouse
- ATI RADEON™ 64MB Video Card/TV-OUT
- MDG Vision Deluxe Mid Tower 320W
- SoundMAX 3D Sound Effects
- Altec Lansing AVS300 Subwoofer Speaker System
- Perfectly Flat 17" .20hdp Samsung Monitor
- Microsoft Windows XP
- Microsoft 2002 Software Bundle
- FREE Internet on Cable Offer

DDR MODEL: \$1838
• INTEL® DDR MOTHERBOARD
• 266MHz DDR MEMORY
• HD SILENT SEEK...

**LAST WEEK: \$1997
THIS WEEK:**

\$1743

**SIX MONTHLY PAYMENTS: \$290.50
NEXT WEEK - GONE**

VISION 2000 G

INTEL® PENTIUM® 4 PROCESSOR 2.0 GHZ

DDR MODEL: \$2735
• INTEL® DDR MOTHERBOARD
• 266MHz DDR MEMORY
• HD SILENT SEEK...

- Genuine Intel® Motherboard, 845 Intel® Chipset up to 3GB Memory support
- Intel® Rapid BIOS Boot, Six USB Ports (Two front), Six PCI Slots
- 512MB Memory
- 80GB 7200 RPM Hard Drive
- 24x10x40 CDRW Drive & Floppy Drive
- Microsoft Wireless Keyboard
- 16x DVD Drive
- Microsoft Wireless Mouse
- ATI RADEON 8500 Video card
- MDG ATX Deluxe Mid Tower 320W
- SoundBlaster AUDIGY 1394 Sound Card
- IEEE 1394 Firewire connection
- Altec Lansing AVS500 4 Speakers & Subwoofer
- Perfectly Flat 17" .20hdp Samsung Monitor
- FREE UPGRADE TO 19" PERFECTLY FLAT MONITOR OR 15" SAMSUNG LCD SCREEN
- Microsoft Windows XP
- Microsoft 2002 Software Bundle
- FREE Internet on Cable Offer

**LAST WEEK: \$2995
THIS WEEK:**

\$2640

**SIX MONTHLY PAYMENTS: \$440.00
NEXT WEEK - GONE**

MISSISSAUGA 5659 McAdam Rd. WATLINE AVE. McADAM RD. MATHESON RD. (905) 712-4151	SCARBOROUGH 186 Shorting Rd. SHEPPARD AVE. HWY 401 (416) 299-7729	TORONTO 1 Leaside Pk. Dr. EDLINTON AVE. OVERLAND RD. DOW HILLS RD. DOW VALLEY PK. (416) 421-8010	NORTH YORK 2180 Steels Av. W. STEELES AVE. W. (905) 669-8841	ETOBICOKE 415 Horner Av. QEW HORNOR AVE. HWY 401 (416) 255-9343	WHITBY 1645 Dundas St. E.#2 DUNDAS HOPKINS ST. HWY 401 (905) 432-8990	NEWMARKET 17915 Leslie St.#15 STELLAR DR. DAVIS DR. HWY 404 (905) 898-5847	KITCHENER 1342 Weber St. HWY 8 HWY 7 (519) 895-8650	ST.CATHARINES 353 Lake St. SCOTT ST. FAIRVIEW RD. QEW (905) 938-8100	HAMILTON 836 Upper James St.#111 MCHAWK RD. (905) 318-8861	BURLINGTON 3425 Harvester Rd.#110 QEW AT DESIGN CENTRE HARVESTER RD. FAIRVIEW ST. (905) 631-8499	BRANTFORD 415 Fairview Dr. #3 FAIRVIEW DR. HWY 403 (519) 759-2387
---	--	---	--	---	---	--	--	--	--	---	--

Behind the scenes at EA: The (re)making of NHL

By SHARLENE MYERS

Electronic Arts Canada is located in one of the hottest high tech hubs in B.C.'s Lower Mainland — with neighbours like Creo products, IBM and the British Columbia Institute of Technology. The three-year-old structure is dominated by large windows and walls faced with rock and sits on top of a hill surrounded by trees with a wide view of Burnaby. It is EA's largest studio, employing 750 people in offices and cubicles featuring the natural colours so popular on the West Coast — rust, green, gold and blue. The on-site cafeteria was recently cited by *BCBusiness* magazine as one of the best in Greater Vancouver, providing a wide variety of fresh, healthy food for breakfast, lunch and dinner.

The whereabouts of the NHL production team is clearly marked by the jerseys hanging from the ceiling over the tall cubicle walls. It was five o'clock in the afternoon by the time I arrived, but the office was still buzzing with activity, including a wail of "No!" from one of the cubicles — perhaps programmers suffer from computer crashes, too?

Dave Warfield is a producer for EA's popular NHL game, which is updated each year in time for the new hockey season in the fall. It's a process that takes all year and employs 42 people full-time, including programmers, 2-D and 3-D artists and animators, audio creators and editors, as well as the producers, who are responsible for quality control and design. And that doesn't even include the quality assurance testers, the marketing and public relations people and the sales staff.

Starting over

Often, Warfield explained, the planning for the next year's edition begins before the current year's offering has even hit store shelves. The team may have a feature they wanted to add to the current edition, but didn't have time to build it in. From here, he added, the process "starts with reviewing what we built the previous year — taking a really good look at how the game plays, what are the features we have in the game already, what was the response to it from our fans. We've got a lot of fan sites and they are not afraid to post messages about it. We get a lot of letters and e-mails talking about things they like, they don't like, what they'd like to see."

This feedback is the beginning of a wish list for the next year's game, which is expanded by ideas from the production team about what they would like to add to the program. From there, they start to prioritize the elements and narrow the list down to key features to do this year.

They also have to consider how the NHL itself changes from year to year, adding or moving teams and players.

"Ideally, so long as we have enough time, we always try to get in either the latest team — which means changing schedules and a lot of other things like that — but even just uniform changes or players being traded to teams. We always try to keep on top of that and try to wait until the last possible minute so that we can get the most up-to-date pieces into the game," said Warfield.

Once they have this list, the programmers, artists, audio people and producers sit down together and try to flesh out

what each of these features involves, using mock-ups of screen shots and video to provide rough prototypes of what they're hoping to do. They then break these features down into individual elements to help estimate how much time each will take and how the work can be divided among team members. Only then can they make the final decision about what's going in and what will have to wait for another year.

From concept to controller

The work is then broken down into what Warfield calls "threads." A thread is a single problem-solving element. The idea is that when a thread is completed, there is something that can be reviewed and tested on its own. Last year, for example, Warfield said, they added a feature called a break-away camera to the game. The first thread in that feature involved being able to slow down time and control the player within that slowed down time period. The second thread was to bring the camera in closer to the player and the third thread was to add the audio.

Once the threads are completed, they reach the stage Warfield referred to as "Alpha," where all the separate pieces are integrated into the game. This is his favourite stage of the process. At Alpha, the game goes into full review and fine-tuning, "looking for bugs, looking for things that could make the game play a little better, more responsive, making sure that the features are polished and completed to the best detail we can give it and getting rid of all the bugs we can," Warfield said. "We're sitting here playing hour upon hour, we have a whole QA department that's playing hour upon hour to find all the problems with the game, get those fixed and once those are done, we're done. And then we start planning for the next year."

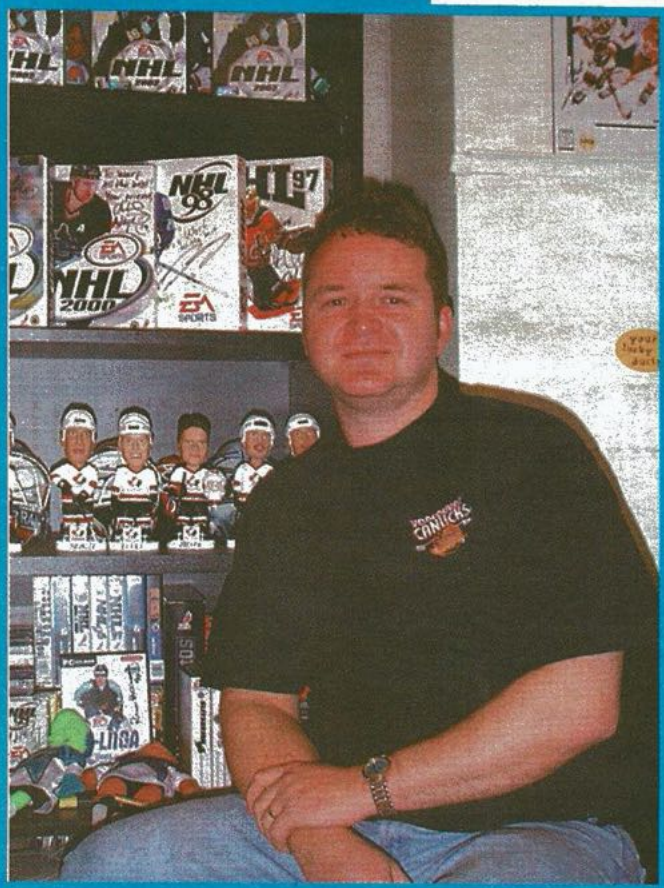
With so many variables in play, there are a lot of things that can go wrong and cause delays. Sometimes a new element will conflict with other elements in the game and cause problems. Sometimes things will just take longer than planned. "A lot of times the tuning and tweaking of the quality level takes a lot more time than even the implementation of the feature," said Warfield.

And then there are the stakeholders to please. The NHL reviews almost every piece of the game, according to Warfield, and the NHL Players' Association does the same.

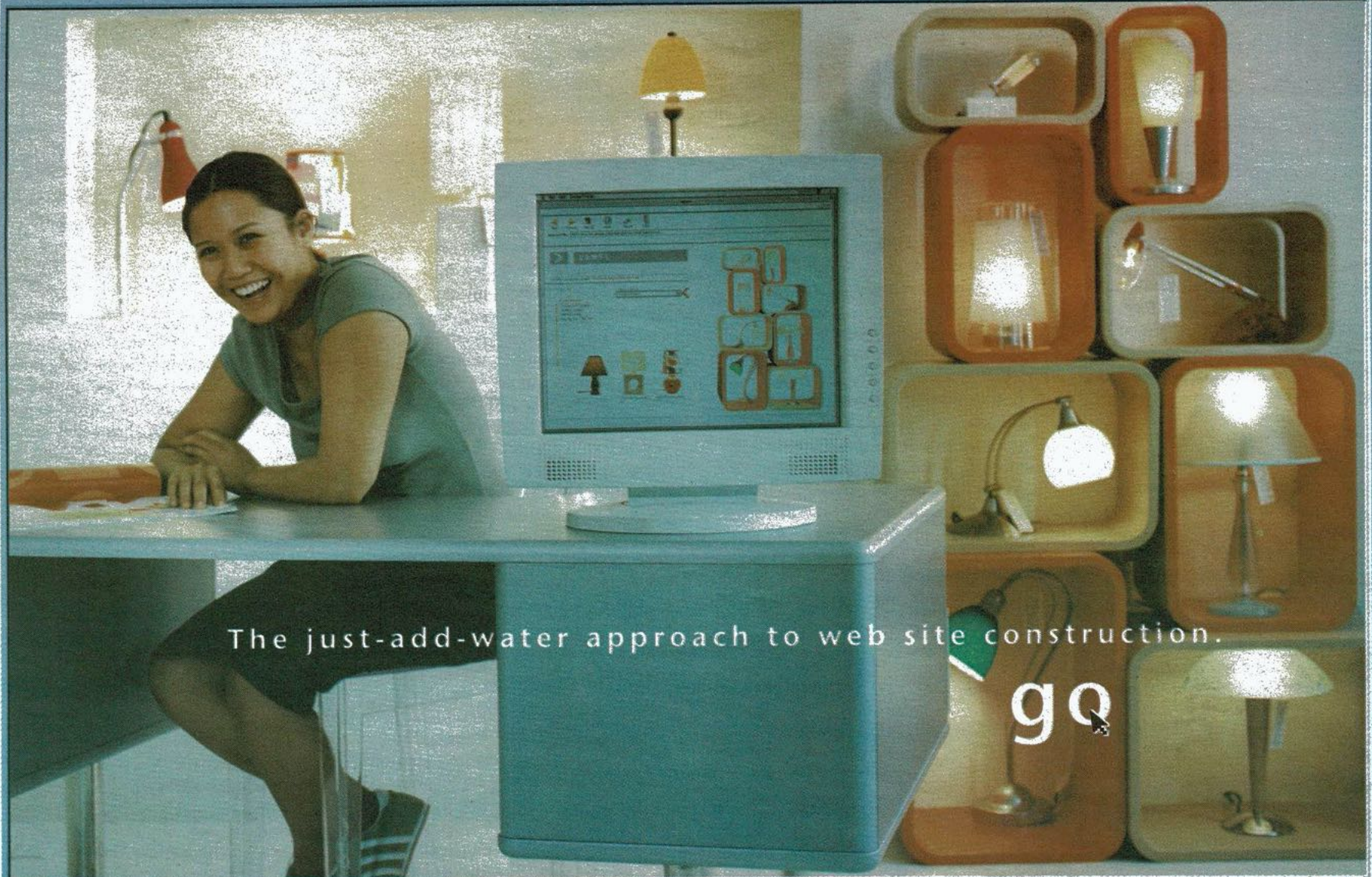
"The NHL wants to make sure that their uniforms and their game that their name is attached to and on the front of the box is representative of a product that they're happy to have go out to everybody, from kids to adults," Warfield said. "The NHL Players' Association is also looking at that, but they're [also] looking at their players, and making sure their players are reflected in a good light."

In the end, it all comes down to a deadline. For the last two to three months, while the game is in Alpha, Warfield admits he sees little of his family and sacrifices his personal life, working from 10 a.m. to midnight six or even seven days a week.

As might be expected, Warfield admits that he spends less time playing games outside of work than he used to. But the inner gamer, first drawn to *Pong* and arcade games as a thirteen-year-old, lives on. Playing games, all sorts of games, is part of his job, he said. He plays at work. His current favourites include *Grand Theft Auto 3*, *Medal of Honour* and *Agent Under Fire*. And the whole team sometimes takes breaks to play games over the network and blow off steam. "It's always checking out what everybody else is doing and being on top of the industry, I think, is a really important part of my job. And any of the producers or assistant producers have to be game knowledgeable — what are the hot things out there, what are the game players looking for and what are the features in those games that appeal to them, to see if some of that makes sense to go into our games." ♦



Network-based Business



The just-add-water approach to web site construction.

go

Introducing SmartWeb. A network-based solution to creating your company's web site.

Only
\$99⁹⁹
per month

To order, call 1 877 474-8655 or
visit us at www.bell.ca/webeasy



Having a web site has more or less become part of the price of doing business. But it doesn't have to be a big price. Or a big headache. The **SmartWeb** solution from Bell makes it easy for you to create your own informational company web site for only \$99.99 per month with no set-up costs.

You can do it. There's nothing to download and nothing to install. Just access the application on the web, choose the template you like, click using the tools provided and your web site is up and running. And you can revise and update the site as often as you want at no extra cost.

We can help. We provide one free hour of site development assistance by phone. And we stay with you for the long run with a toll-free technical help desk. What's more, we'll let your customers know about your web site by registering it on yellowpages.ca and bellzinc.ca so customers can find you fast.

21802714

Certain conditions apply. Price and offer subject to change without notice. Yellow Pages is a trade-mark of Bell ActiMedia Inc., used under license; BellZinc.ca is a trade-mark of Bell Canada.

Misconceptions about violence in games

By ERIK SEBELLIN

There is violence in games. This is a statement no one can question. Not all the games, not all the time and not of equal brutality; but yes, many games have at least some elements of violence.

And it is this violence that has many a parent up-in-arms, if you'll forgive the pun. But are games *that* violent? And, if they are, what can parents do to protect their children from inappropriate violence?

Are games violent?

Games run the gamut from simple mainstream edutainment designed to teach everything from spelling to how plants grow, to underground hate games. But even the simplest of games often have some violence. For example, in *NHL 2002*, rated for everyone six years old and up, you see violence in the fights between players. And in *Star Wars: Racer Revenge*, children are treated to violence such as vehicle to vehicle combat.

Games for teenagers have more violence. On one hand, we have games such as the very popular *The Sims*. Here, the violence consists of characters slapping each other when provoked or tussling in a cartoon-style cloud of dust. On the other hand, we find games, such as *Command & Conquer: Renegade*. This game includes violent acts ranging from destroying vehicles to shooting and killing characters. Both games are devoid of blood.

Games designed for adults include *Counter-Strike* and *Soldier of Fortune*. These games not only include violent acts such as stabbing and shooting and killing characters, but they also include blood (although many of these types of games allow the player to specify the degree of blood and gore).

Thus far, this is as brutal as games get. However, there is one niche genre that is even more concerning than purely violent games: Hate games.

Made by white supremacists, hate games are a relatively new and incredibly distressing minority. Very easy to find online, these games, which range from first person shooters to Pac-Man clones, tend to be priced to fit a teenage budget – from free downloads to only \$20 or so. These games are horrifying because they marry violence with hate. For example, in one game, players hunt North American minorities, including blacks and Jews. As opposed to mainstream games, which are designed for fun, these hateful games are developed specifically to spread bigotry, glorify the act of killing non-white people and indoctrinate teenagers into a world of hate.

Protection

So how can parents protect their children from inappropriate games? Beyond the obvious steps – talking with your children and being aware of what they are doing – parents can refer to the

Entertainment Software Rating Board (ESRB) rating system.

The ESRB is a voluntary organization that assigns ratings to games. The ratings can be found on the cover of game boxes (look for a small box with black letters on a white background) and on the ESRB Web site (www.esrb.org).

There are six ESRB ratings. The Early Childhood (EC) rating is given to titles whose content contains no questionable material. These titles are suitable for children ages three and older. Titles rated

Everyone (E) may contain minimal violence, some comic mischief (such as slapstick comedy) or some crude language. These titles have broad appeal and are suitable for those ages six and older.

The two ratings of most interest to parents of teenagers are Teen (T) and Mature (M). The Teen rating is for titles that may contain violent content, mild or strong language and/or suggestive themes. These titles are rated suitable for persons ages 13 and older. The Mature rating, which indicates the game includes more intense violence or language and more mature sexual themes than Teen titles, are deemed suitable for those ages 17 and older.

Titles with the remaining two ratings, Adults Only (AO) and Rating Pending are not typically found in mainstream stores.

So what's the bottom line?

We live in a society that has two major misconceptions about games. The first misconception is that most games are violent. The second misconception is that kids play most games.

The reality is, most games purchased are non-violent and purchased by adults. In 2000, Douglas Lowenstein, President of the Interactive Digital Software Association (IDSA) told the U.S. House Subcommittee on Telecommunications and the Internet that 117 of 1,600 titles produced that year were rated M for mature, with M games getting just nine per cent of total sales. And in 2001, according to the IDSA, 90 per cent of games were purchased by people over the age of 18. This amounts to more than 225 million games. Also in 2001, 18 of the top 20 best selling games of 2001 were rated E for everyone or T for Teen.

This means that with a little due diligence, parents can relax about games: Not only are most of them not the brutally violent games many parents fear, but of the games that are, most of them are not played by children. ♦

Gaming: The horror

By S.J. ROSS

The player, acting as a male World War II U.S. Army Ranger, sneaks behind a guard, pulls out his pistol and slams it into the guard's face. The guard, with his stoic jaw and one-dimensional eyes, slides to the floor. The player, laughing with glee, moves on.

In another game, the player, this time acting as groovy female secret agent Cate Archer, catches a man in her sights and pulls the trigger. Because the blood option is turned on, the player sees a spray of blood as the body crumples to the ground. Shooting character after character, the player says it is "as much fun as a shooting gallery."

And in yet another game, the player, acting as a deity represented by a large hand, trains his pet by petting it when it is good and slapping it hard when it is bad. So hard, in fact, the animal cowers with fear.

The first game is *Medal of Honour*. The second game is *No One Lives Forever*. And the third game is *Black & White*. In the first, the violence is intimate but bloodless. In the second, the violence is bloodier (although nowhere

near as gory as in even more violent games, such as *Soldier of Fortune*), but tempered with a goofy sense of humor. And in the third, the violence is comparatively minimal but is directed at an innocent being who utters heart-wrenching cries of pain.

Regardless of how bloody the violence is, whether it is perpetrated by a male or female character, and whether it is directed at a human or an animal, I am horrified. I am horrified that someone would choose to engage in an activity where the fun consists, at least in part, of hurting or killing. Most of all, I am horrified by the delight the player displays in the violent acts.

The "I" in this article refers to me. I am female. This is of note because the vast majority of video games are developed, reviewed and played by males, which means we tend to get a male perspective on all things video game, including violence. But how about a female point of view? To answer this question, at least from my perspective, I spent an afternoon with a die-hard player playing all the games I could get my hands on. And my conclusion is



POWERFUL WEBHOSTING & EMAIL

The Developer's Dream!



VM Server works like a dedicated server, with superior reliability and scalability.

Its ease of use, robust tools and unified control panel takes the worry out of hosting your clients.

Websites as low as \$7.49
Virtual Managed Server

We challenge you to find a more robust or easier to use solution ANYWHERE!

**Award
Winning
Platform**



HOT TOOLS!

- FrontPage 2002
- Email Virus Scanning
- MS Access
- Cold Fusion
- CGI-BIN
- MySQL
- SSL
- PHP
- Perl
- ASP
- Shopping Carts
- Java Applets
- Real Audio & Video
- Website Builders
- MS SQL
- And More!

SUPERIOR PLATFORM:

- NT & UNIX Hybrid Solution
- Robust Customer Self Management Tool
- 99.9% Network Uptime Guarantee
- Free 24 hours live support

DOMAIN REGISTRATION

Starting from \$19.99

HOSTING SOLUTIONS

Starting from \$14.99

NO SETUP FEES!

*begins with Bronze package



Blue Genesis

Check out our free website demo at www.bluegenesis.ca

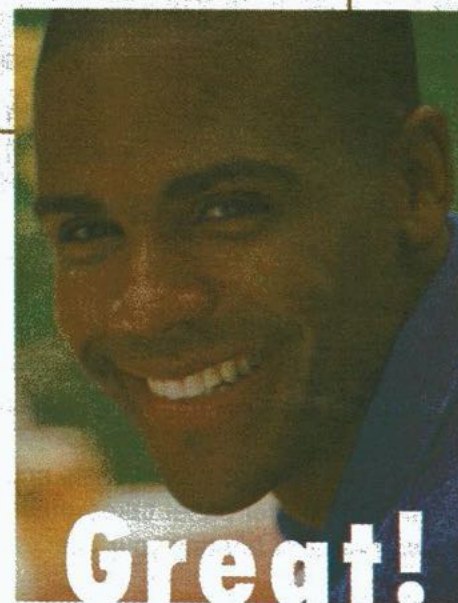
sales@bluegenesis.ca • www.bluegenesis.ca • (416) 234-7623 • 1-866-258-3354

How's your web host?

Getting the most features for your dollar? Getting help from people who actually know their stuff?

KORAX has provided web services for small, medium, and enterprise level organizations around the world since 1996. Our hallmarks are our expertise in multiple platforms, our multi homed, multi redundant fibre optic network, and our superior customer care.

Make sure your business or organization is in the right hands. Call us today.



Web hosting

Up to 500 MB
unlimited e-mail
PHP, MySQL, ASP.NET

from

\$15*

Domains

Registration of .com,
.net, .org, .co, .biz,
.info, and others

from

\$20

Server Co-location

from \$170

Managed Hosting

from \$395

Co-managed Hosting

from \$295

web hosting managed hosting server co-location domain registration SSL certificates

1.877.567.2963

www.korax.com

the web host for business



*Not all features available with all packages. See web site for complete details.

Gaming: The horror

continued from page 16

we would have a better world without violent video games.

Ideally, we want a world of peace. A world where people turn to constructive avenues as opposed to destructive avenues to vent their frustrations. A world where people solve their differences by helping, as opposed to hurting, each other. In other words, we want a world shaped by love, not violence.

Video games do not lead us to this world. This is not necessarily bad; entertainment, after all, is not required to have a constructive purpose. But it is

bad if the entertainment has a destructive purpose.

With everything from toy guns and soldier dolls to events such as WrestleMania, music with violent or hateful lyrics, slapstick Saturday morning cartoons, brutal movies and television shows and even the evening news, violent video games – and not all games are violent – are certainly not our only avenues of violence. But these video games have two attributes not found in conjunction with any other form of violent entertainment – intimacy and graphic content.

I have seen game players so intimate-

ly involved with their violent games they literally duck their heads to dodge virtual bullets and yell with delight as their bullets rip bloody holes in other characters. I have seen graphics so gory they rival my worst nightmares. And while I recognize that, for many players, the thrill is in the chase rather than in the violence, a generation of gamers is receiving training in tactical manoeuvres while learning everything they possibly can about an incredible variety of weapons, short of actually firing one.

Clearly, violent video games lead to a familiarity with violence. But the real question is, does this desensitization

toward violence lead to the casual initiation, support or even participation in real life violent events?

I do not know; I am not an expert. So I turned to an expert for an answer. I turned to a die-hard gamer. This gamer, who spent countless hours every day playing a sniper in *Tribes*, did not believe that violent video games translated into real life violence. However, he did tell me he was starting to see little red triangles – symbols connoting targets – over people's heads. Only now, the heads under the triangles belonged to real people as opposed to characters. He found this quite amusing. I was horrified. ♦

MAY 2002

PLUG & PLAY

STORE HOURS : MON - FRI: 10:00 AM TO 7:00 PM SAT: 10:00 AM TO 6:00 PM SUN : CLOSED

BRAMPTON
199 ADVANCE BLVD. # 4
1 Block South - Steeles & Dixie
TEL: (905) 790-0977
FAX: (905) 790-1887

ETOBICOKE
3272 LAKESHORE BL W
Near Kipling & Lakeshore
TEL: (416) 251-3731
FAX: (416) 251-3935

NORTH YORK
4630 DUFFERIN ST
2 Blocks North - Finch & Dufferin
TEL: (416) 661-9049
FAX: (416) 661-0670

SHELBURNE
520 SIMONE ST
South West Corner - Hwy 89 & Hwy 10
TEL: (519) 925-0198
FAX: (519) 925-3689

BARRIE
109 BAYFIELD RD
Different Store Hours
TEL: (705) 721-1616
FAX: (705) 721-5132

8 years in business, 6 stores to serve you "better" and multi-location warranty

System Packages >>

We Are Better



System May Not be as Shown

System Upgrade Packages:

#1 17" .27dp .23hdp LG MONITOR,
WINDOWS 98SE OR XP HOME WITH
SOFTWARE CD AND LICENCE
Add \$ 359

#2 17" .25dp .21hdp LG FLAT MONITOR,
WINDOWS 98SE OR XP HOME WITH
SOFTWARE CD AND LICENCE
Add \$ 389

pANDROID-51
\$465 Starting At
128MB PC133 SDRAM Memory
40 GB Value Hard Drive
1.44" Floppy Drive
48x EIDE CD Rom Drive
64MB Shared 3D 4x Video
AC97 Stereo Sound System
RJ45 10/100 Network Adapter
56k Fax, Voice, Data Modem
PS2 Windows Keyboard and Mouse
Amplified Stereo Speaker System
OEM Software Bundle
5 Years Labor & 1 Year Parts Warranty

AMD Duron 1.0 Ghz	\$ 465
AMD Athlon XP 1.8+ Ghz	\$ 599
INTEL Celeron 1.0 Ghz 256K	\$ 469
INTEL Celeron 1.3 Ghz 256k	\$ 499

pANDROID-52
\$699 Starting At
256MB PC 133 SDRAM Memory
40 GB Ultra ATA 100 Hard Drive
1.44" Floppy Drive
52x Cd Rom Drive
128Bit up to 64MB AGP Shared 3D 4x Video
AC97 Stereo Codec Sound System
RJ45 10/100 Network Adapter
PS2 Windows Keyboard and Mouse
Labtec Amplified Stereo Speaker System
Microsoft Works, Encarta and Money
Additional OEM Software Bundle
5 Years Labor & 1 Year Parts Warranty

AMD Athlon XP 1.7+ Ghz	\$ 699
AMD Athlon XP 1.8+ Ghz	\$ 719
INTEL P-4 1.6A Ghz 512k	\$ 755
INTEL P-4 1.8A Ghz 512k	\$ 845

pANDROID-53
\$1025 Starting At
Plug & Play Deluxe Case w/300w P4 PS
256MB PC 2100 266 Mhz DDR Memory
40 GB 7200 RPM UATA 100/133 Hard Drive
1.44" Floppy Drive
32x10x40 Burn Proof Technology CD Re-Writer
GeForce 2 MX400 64MB 4x AGP Gaming Video
AC97 Stereo Codec Sound System
Internet Keyboard and Optical Scroll Mouse
Boka 600w PMPO Stereo with Subwoofer
Microsoft Works, Encarta and Money
Additional OEM Software Bundle
5 Years Labor & 1 Year Parts Warranty

AMD Athlon XP 1.7+ Ghz	\$ 1,025
AMD Athlon XP 1.8+ Ghz	\$ 1,045
INTEL P-4 1.6A Ghz 512k	\$ 1,059
INTEL P-4 1.8A Ghz 512k	\$ 1,159

pANDROID-54
\$1799 Starting At
Asus P4 400MHz / AMD 266 Mhz Mainboard
512 MB DDR PC2700 @333 Mhz Memory
80 GB 7200 RPM UATA 133 Hard Drive
1.44" Floppy Drive
LG 32x10x40 8MB Buffer CD Re-Writer
16x DVD Drive 40x Cd Support
GeForce 4 MX440 64MB 4x Gaming Video
Sound Blaster Audigy 5.1 1394 Sound Card
IEEE 1394 Firewire Connection
Wireless Internet Keyboard & Optical Mouse
Altec AVS500 4 Speakers Surround w/Sub
5 Years Labor & 1 Year Parts Warranty

AMD Athlon XP 1.8+ Ghz	\$ 1,799
AMD Athlon XP 2.0+ Ghz	\$ 1,959
INTEL P-4 1.6A Ghz 512k	\$ 1,849
INTEL P-4 1.8A Ghz 512k	\$ 1,955

MICROSOFT CAUTION - ARE YOU BUYING LEGAL SOFTWARE?

You must receive both the Original Software CD (with halogram) and COA Licence to be legal. Check PIRACY section of our web site for details.

EXTEND WARRANTY

With Nation Wide Coverage on Computer and Home Electronic Products whether purchased from us or not

24/7 SECURED ONLINE STORE

WWW.YESPLAY.COM

LOW SHIPPING CHARGE

NO CREDIT CARD CHARGE FOR ONLINE ORDERS SHIPPED BY COURIER/MAIL

POINT OF SALES

Call 905-494-1054 for all your requirements including Cash Box, Barcode Reader etc.

CHECK ONLINE REGULARLY FOR PRICING UPDATES FOR SYSTEMS, PARTS AND UPGRADE KITS NOT LISTED HERE. RESELLERS, COMPANIES, GOVERNMENT, & EDUCATIONAL INSTITUTIONS ARE WELCOME

RACKMOUNT		CASES		HARD DRIVES IDE		MONITOR		NETWORK		VIDEO CARD	
4U CASES		TOWER ATX		5400 RPM (ATA 100) (C)		LG 17" .27dp (.23hdp) 1280x		10/100 RJ45 PCI NIC		Xpert 98 8mb (C)	
19" 300W ATX P4		Mid 7 Bays 300W (C)		30 GB WD - 1 YR WARRANTY		LG 17" .25dp (.21hdp) FLAT		DLINK 530/538 10/100 PCI NIC		Xpert 2000 Pro Dual 32mb (C)	
FROM \$ 259.99		Mid 7 Bays 300W P4		40 GB Maxtor		TTX 17" .27dp (.23hdp) 1280x		3COM 3C905B 10/100 PCI NIC		Radeon 7000 64mb TV OUT (C)	
ARE IN STOCK		Mid 8 Bays 300W		60 GB AND ABOVE		TTX 17" .25dp (.21hdp) 1600x		DLINK 10/100/1000 PCI NIC		Radeon 7500 64mb Dual Display (C)	
		Mid 8 Bays P4 300W		7200 RPM (ATA 100/133) (C)		TTX 17" .25dp (.21hdp) FLAT		KINGSTON 4 PRT 10/100 Switch		Radeon 8500 64mb DDR Dual (C)	
		Mid 8 Bays 250W HEC		20 GB Maxtor/WD		TTX 19" .25dp 1996i 1600x1200x		ROUTER		TV Wonder PCI (Not VE)	
		Mid 8 Bays 300W HEC		40 GB Maxtor/WD		TFT LCD FLAT PANEL		USR 4 Port Cable / DSL 10/100		Asus GeForce 2/3 (R)	
		Enlight 8 Bays P4 300w		60 GB Maxtor/WD		Please check the web site		Wireless Cable / DSL Access Points		V7100 MX 400 Pro Pure 64mb	
		Antec 10 Bays SX1030/1030B		80 GB and Above		MOTHERBOARD (R)		10BaseT with Dongle		Asus GeForce 2/4 (TV OUT) (R)	
		RACKMOUNT 19" 4U		KEYBOARD		PENTIUM 3 SOCKET 370		LINKSYS 10/100 USB Adapter		V7100 MX 400 Pro 64MB	
		P4-300W Server 8 Bays		Windows 104 Ps2		All-In-One 758LMR-T (C)		SPEAKER		V8170DDR/T 64mb GF4 MX440	
		Server & Raid 8 Bays		Logitech Internet 104 Ps2		PENTIUM 4 SOCKET 478		120w Stereo		V8440/TD 128MB GF4 T14400	
		Server & Raid 7 Bays		Logitech Internet 104 Ps2		MSI 645 Ultra DDR		Labtec SS-100 Black		V8460U/TD T14600 128mb DDR	
				MOUSE		ASUS P4S333M		Altec Lansing AVS300		Others (R)	
				Microsoft Compatible 3 button		Asus P4B266C, DDR		Altec Lansing AVS500		SIS315 64MB 4x AGP	
				Logitech Scroll		Asus P4T-E OB Audio, RDRAM		Altec Lansing ACS54		GeForce 2MX 400 64mb	
				Logitech Optical Scroll		Intel 850MDL i850, RDRAM		Altec Lansing ATP3		GeForce 2MX 400 64mb TV Out	
				Microsoft Optical Scroll		AMD SOCKET A		Promedia Klipsch 2.1, 4.1, 5.1		FOR MORE SELECTION, SEE WEB SITE	
				MODEMS VOICE V.90		All-In-One 810LMR Version 7 (C)		SOUNDCARD			
						ECS K755A SDRAM & DDR		16Bit PCI Stereo			
						MSI K7TPRO KT266 SDRAM		SB Live Digital 5.1 Value			
						A7N266-VM OB Vga/Audio/Lan		SB Audigy 5.1 Value			
						A7V333 KT333 DDR USB 2.0		SB Audigy 5.1 Mp3/Xgamer (R)			
						MSI KT3 ULTRA KT333 OB Audio		SB Audigy Platinum 5.1 (R)			
						ABIT KR7A-133a RAID					

* Prices shown are already 4% interact and cash discounted before taxes. Due to price fluctuation, prices are subject to change without notice.

No personal checks accepted and payments are at regular prices. Product are oem unless otherwise stated and some item maybe available only on special order. 30% restocking fee applies to components, special orders returned for exchange or refund.

We Are Better
WWW.YESPLAY.COM

14 Years in Business

550 Alden Rd., Unit #110
Markham, Ontario L3R 6A8
Tel: (905)470-1425 Fax: (905)470-9556

GREY TECH

COMPUTER INC.

HARDWARE • SOFTWARE • ACCESSORIES

DIRECTIONS
4 LIGHTS NORTH OF STEELES
1 BLOCK WEST OF WARDEN
HOURS:
MON. - FRI. 9:00 a.m. - 6:00 p.m.
SAT. CLOSED

MOTHERBOARDS

SOCKET 370 (FC-PPGA)	
ASUS CUV266 (WITH 128MB DDR)	129
ASUS CUV4X-DLS (VIA)	499
ASUS TUA266-WOA	109
ASUS TUSL2-C	149
ASUS TUSL2 (AUDIO)	189
ASUS TUV4X	129
ASUS TUV4X (AUDIO)	139
MSI6309	119
MSI6368	99
SOCKET A (AMD)	
ABIT KG7	219
ABIT KG7-RAID	279
ASUS A7M266-D	369
ASUS A7N266-C-WA	169
ASUS A7N266-WA	209
ASUS A7V-266-E-AA	199
ASUS A7V-266-E-RAID	229
ASUS A7V-333-WA	209
ASUS A7V-333-RAID	239
MSI K7T-TUR (6330)	219
MSI K7T266PRO2-RU (6380)	129
TYAN S2466N	389
SOCKET 478 (PENTIUM IV)	
ASUS P4B-WA	179
ASUS P4B266-C-WOA	189
ASUS P4B266-WA	229
ASUS P4S333-M-WA	139
ASUS P4S333-WA	159
ASUS P4S333-VM-WA	159
ASUS P4S533-WA-WL	179
ASUS P4T-E (AUDIO)	259
MSI 6398-AR	159
MSI 6398-ARU	199
MSI 6528LE	149
MSI 6547-ULTRA	129

CASES

GREY-TECH MIDTOWER	
GT-4H7 (350W / USB)	49
GT-4HL7 (350W)	59
ENLIGHTEN	
#7237 MID TOWER w/extra fan	59
ANTEC PERFORMANCE PLUS SERIES MINI	
PLUS660 (330W/USB)	179
PLUS660B (330W/USB)	179
MIDTOWER	
PLUS860 (330W/USB)	189
PLUS880 (430W/USB)	209
FULL TOWER	
PLUS1060 (330W/USB)	199
PLUS1080 (430W/USB)	229
PLUS1080B (430W/USB)	229
PERFORMANCE SERIES	
SX1030 (300W/10BAY)	169
SX1030B (300W/10BAY)	199
SX1040 (400W/10BAY)	229
SX1040B (400W/10BAY)	229
SX1240 (400W/14BAY)	259
SX1440B (400W/14BAY)	699
SX630 (300W/8BAY)	129
SX635 (350W/8BAY)	159
SX830 (300W/8BAY)	159
SX840 (400W/8BAY)	209
LIAN LI (LIAN-LI.COM)	
PC60USB Aluminum	239
PC86USB Aluminum	259
PC65USB Aluminum	249
PC07USB Aluminum	189
PC68USB Aluminum	259
PC70USB Aluminum	339

POWER SUPPLY

ANTEC	
PP352X (350W)	89
PP412X (400W)	129
PP510D (510W)	189
ENERMAX	
EG365P-VEFMA (350W)	89
EG465P-VE (450W)	109
EG651P-VE (550W)	189

Includes:

- 0 Panasonic 1.44 Floppy Drive
- 0 Seagate 40GB (7200RPM) Hard Disk (2MB Cache)
- 0 Mid Tower Case
- 0 Sony 52xi CD-ROM Drive
- 0 Sound Blaster Live 5.1 Dig. (PCI/OEM)
- 0 Altec Lansing AVS-200 Speakers
- 0 Logitech First Mouse+ (w/scroll)
- 0 Logitech Internet Keyboard
- 0 DLink 10/100 NETWORK CARD
- 0 Microsoft Windows XP HOME (CD/OEM)
- 0 2 Years P & L Limited Warranty

CPU

DURON 200MHz (RETAIL)	
SOCKET A	
AMD DURON 1100	119
AMD DURON 1200	129
AMD DURON 1300	149
ALTHON MP 266MHz	
SOCKET A	
ATHLON MP 1600 (1.4GHz)	279
ATHLON MP 1800 (1.53GHz)	309
ATHLON MP 1900 (1.60GHz)	359
ATHLON MP 2000 (1.67GHz)	449
ALTHON XP 266MHz (RETAIL)	
SOCKET A	
ATHLON XP 1700+ (1.47GHz)	209
ATHLON XP 1800+ (1.53GHz)	229
ATHLON XP 1900+ (1.60GHz)	269
ATHLON XP 2000+ (1.67GHz)	369
ATHLON XP 2100+ (1.73GHz)	439
INTEL 100MHz (RETAIL)	
SOCKET 370	
INTELCERLON1.1GHz	129
INTELCERLON1.2GHz	149
INTELCERLON1.3GHz	159
INTEL 133MHz (RETAIL)	
SOCKET 370	
INTEL P3-1.130EB	209
INTEL P3-1.260EBW/512K	359
INTEL P3-1.4EBW/512K	499
400MHz (RETAIL)	
SOCKET 478	
INTEL P4-1.6AGHz w/512K	239
INTEL P4-1.7GHz	269
INTEL P4-1.8AGHz w/512K	329
INTEL P4-1.9GHz	389
INTEL P4-2.0AGHz w/512K	459
INTEL P4-2.2AGHz w/512K	709

SOUND CARDS

CREATIVE LABS	
BLASTER 128 (PCI/OEM)	39
BLASTER LIVE DIGITAL 5.1 (OEM)	59
BLASTER AUDIGY (OEM)	109
BLASTER AUDIGY X-GAMER	139
BLASTER AUDIGY MP3+	139
BLASTER AUDIGY PLATINUM (INT)	269
BLASTER AUDIGY PLATINUM (EXT)	339
BLASTER EXTIGY (EXT / USB)	219

AMERICAN POWER UPS

(Backup/Recharge/Power Cap.)	
BACK-UPS	
BK500 (10/7HR/300W)	189
BK650MC (14/11HR/400W)	259
BACK-UPS PRO	
BP280S (23/4HR/180W)	189
BP350UC (22/7HR/220W)	199
BP420S (13/4HR/260W)	289
BP500UC (13/7HR/315W)	229
BP650S (13/4HR/410W)	389
BP1000 (16/3HR/670W)	559
BP1400 (23/6HR/950W)	699

SMART-UPS

SU420NET (15/5HR/390W)	329
SU620NET (13/5HR/260W)	429
SU700NET (18/3HR/450W)	509
SU1400NET (24/5HR/950W)	939
SU2200NET (32/5HR/1600W)	1379
SU3000NET (18/5HR/2250W)	2149

We sell replacement batteries

EIDE DRIVES

WESTERN DIGITAL	
7,200RPM	
20.0 GB (200BB)	119
40.0 GB (400BB)	139
60.0 GB (600BB)	179
80.0 GB (800BB)	209
100.0 GB (1000BB)	299
100.0 GB (1000JB, 8MB)	349
120.0 GB (1200BB)	319
IBM DESKSTAR	
7,200RPM	
40GB (07N9208)	149
60GB (07N9209)	179
80GB (07N9210)	219
120GB (07N9219)	329
MAXTOR	
7,200RPM	
20.4GB (#6L020J1)	119
40.9GB (#6L040J2)	149
60.9GB (#6L060J3)	169
80.0GB (#6L080J4)	209

5,400RPM	
120.0GB (#4G120J6, ATA133)	289
160.0GB (#4G160J8, ATA133)	419

EXTERNAL 1394

FIREWIRE 5400RPM	
80GB (#X01FWRA080)	389
160GB (#X01FWRA160)	589

FIREWIRE 7200RPM

80GB (#Y01FWRA080)	
	409

USB 5400RPM

40GB (#X01USB2040)	
	289
120GB (#X01USB2120)	
	409

5,400RPM

SEAGATE	
20GB (ST320410A)	119
40GB (ST340810A)	119
60GB (ST360020A)	149
80GB (ST380020A)	179

7,200RPM

20GB (ST320011A)	
	119
40GB (ST340016A)	
	139
60GB (ST360021A)	
	169
80GB (ST380021A)	
	209

SCSI DRIVES

SEAGATE 7,200RPM

BARRACUDA (Ultra 160)	
18.4GB (ST-318438LW)	279
181.6GB (ST-1181677LV)	2399

CHEETAH 10,000RPM

18.4GB (ST-318406LW)	
	309
36.4GB (ST-336706LW)	
	499
73.4GB (ST-373405LW)	
	1049

15,000RPM

18GB (ST-318452LW)	
	409
36GB (ST-336752LW)	
	699

EXTERNAL DRIVES

LACIE POCKET DRIVES (FW & USB)

10GB (4200RPM) #300134	329
20GB (4200RPM) #300135	379
30GB (4200RPM) #300136	459
40GB (4200RPM) #300353	559
48GB (5400RPM) #300166	849
FIREWIRE (IEEE1394 & USB)	
20GB (7200RPM) #300149	299
40GB (7200RPM) #300150	329
60GB (7200RPM) #300151	379

MONITORS

VIEWSONIC	
VIEWSONIC 17" (E70)	239
VIEWSONIC 17" (E70M)	299
VIEWSONIC 17" (E75)	279
VIEWSONIC 17" (E70F)	269
VIEWSONIC 17" (E70FB)	279
VIEWSONIC 17" (E75F)	299
VIEWSONIC 17" (G70F)	309
VIEWSONIC 17" (G70M)	269
VIEWSONIC 17" (G75F)	309
VIEWSONIC 17" (G70MB)	309
VIEWSONIC 19" (P775)	439
VIEWSONIC 19" (E90F)	359
VIEWSONIC 19" (E90FB)	409
VIEWSONIC 19" (G90F)	469
VIEWSONIC 19" (G90FB-2)	469
VIEWSONIC 19" (G5790)	479
VIEWSONIC 19" (G90M)	519
VIEWSONIC 19" (G90MB)	519
VIEWSONIC 19" (P95F)	529
VIEWSONIC 21" (E220)	639
VIEWSONIC 21" (G810)	799
VIEWSONIC 22" (P220F)	1089
VIEWSONIC 22" (P225F)	1199

LCD

SAMSUNG	
SAMSUNG 15" (150MP)	919
SAMSUNG 15" (150T)	759
SAMSUNG 15" (151B)	679
SAMSUNG 15" (151P)	869
SAMSUNG 15" (151MP)	1069
SAMSUNG 15" (151S)	589
SAMSUNG 15" (151SS)	609
SAMSUNG 17" (170MP)	1599
SAMSUNG 17" (170T)	1329
SAMSUNG 17" (171B)	1159
SAMSUNG 17" (171MP)	1749
SAMSUNG 17" (171P)	1449
SAMSUNG 17" (171S)	1049
SAMSUNG 17" (171SS)	1099
SAMSUNG 18" (181T)	1549
SAMSUNG 19" (191T)	1919
SAMSUNG 21" (210T)	4119
SAMSUNG 24" (240T)	7199

VIEWSONIC	
VIEWSONIC 15" (VE150)	579
VIEWSONIC 15" (VE150M)	679
VIEWSONIC 15" (VE150MB)	659
VIEWSONIC 15" (VG150)	619
VIEWSONIC 15" (VG150B)	679
VIEWSONIC 15" (VG151)	669
VIEWSONIC 15" (VP150M)	819
VIEWSONIC 15" (VX500)	769
VIEWSONIC 17" (VE170)	1039
VIEWSONIC 17" (VE170B)	1029
VIEWSONIC 17" (VE170M)	1149
VIEWSONIC 17" (VE170MB)	1249
VIEWSONIC 17" (VG171)	1259
VIEWSONIC 17" (VG171B)	1269
VIEWSONIC 17" (VG175)	1279
VIEWSONIC 18" (VG181)	1559
VIEWSONIC 18" (VG181B)	1579
VIEWSONIC 19" (VG190)	1759
VIEWSONIC 19" (VG191B)	2099
VIEWSONIC 20" (VP201MB)	2779
VIEWSONIC 20" (VP201M)	2779
VIEWSONIC 23" (VP230MB)	5429

NEC	
NEC 15" (LCD1550M, USB)	669
NEC 15" (LCD1550V)	579
NEC 15" (LCD1550V-BK)	579
NEC 15" (LCD1550X)	759
NEC 17" (LCD1700V)	1009
NEC 17" (LCD1700V-BK)	979
NEC 17" (LCD1720M)	1029
NEC 17" (LCD1720M-BK)	1059
NEC 18" (LCD1850E)	1259
NEC 18" (LCD1850E-BK)	1279
NEC 18" (LCD1850X)	2179
NEC 18" (LCD1850X-BK)	2199
NEC 20" (LCD2010X)	2359
NEC 20" (LCD2010X-BK)	2359
NEC 20" (LCD2010X-P)	2619
NEC 20" (LCD2010X-T)	3159
NEC 21" (LCD2110)	5179

LASER PRINTERS

LASER PRINTERS	
HEWLETT PACKARD	
HP 1000 (10ppm/1200 dpi)	359
HP 1200 (15ppm/1200 dpi)	579
HP 1200N (15ppm/1200 dpi)	849
HP 1220 (15ppm/1200 dpi) w/scanner	749
HP 2200D (19Ppm/1200dpi)	1189
HP 2200DT (19Ppm/1200dpi)	1409
HP 2200DN / DTN (19ppm/1200dpi) ..	1659 / 2079
HP 3200 (9ppm/600dpi) ALL IN ONE	879
HP 3200M (9ppm/600dpi) ALL IN ONE	1019
HP 4100 / N (25ppm/1200dpi)	1629 / 2299
HP 4100TN / DTN (25ppm/1200dpi) ...	2669 / 3079
HP 5000 / N (16ppm/1200dpi)	2299 / 3219
HP 5000GN (16ppm/1200dpi)	4049
HP 8150 (32ppm/1200dpi)	3199
HP 8150N (32ppm/1200dpi)	3799
HP 8150DN (32ppm/1200dpi)	4589

14 Years in Business

550 Alden Rd., Unit #110
Markham, Ontario L3R 6A8
Tel: (905) 470-1425 Fax: (905) 470-9556

GREY TECH

COMPUTER INC.

HARDWARE • SOFTWARE • ACCESSORIES

DIRECTIONS
4 LIGHTS NORTH OF STEELES
1 BLOCK WEST OF WARDEN
HOURS:
MON. - FRI. 9:00 a.m. - 6:00 p.m.
SAT. CLOSED

CD-ROM / CDRW DRIVES

CD-ROM DRIVES
SONY 52x (EIDE) 59
CDRE-WRITERS
EIDE
LG GCC-4120B (12X8) w/dvd 139

32x10x40 8MB BUFFER
CD-RW BURN PROOF
6000KB/S
 **\$129**
PIN:GCE-8320B

PLEXTOR (24x10x40) 209
PLEXTOR (40x10x40) 239
YAMAHA 3200EVK (24x10x40) 199

SCSI
PLEXTOR CDRW (12x10x32) 399

EXTERNAL
PLEXTOR (24x10x40, USB 2.0) 319
YAMAHA CRW-70 (12x8x24, USB) 369
YAMAHA 3200IXVK (24x10x40) 449
YAMAHA 3200UXVK (24x10x40) 419
YAMAHA 3200SXVK (20x10x40) 429

DVD / RECORDER

EIDE
PIONEER DVD4 16X (SLOT) 99
PIONEER DVD4 16X (TRAY) 89
PIONEER DVR-A04 669

JEWEL CASES

SINGLE 0.25
DOUBLE 0.45
QUAD 0.75

CD LABELLING

BRIGHT WHITE (50) 8.99
BRIGHT WHITE (100) 15.99
BRIGHT WHITE (200) 27.99

SPEAKERS

INSPIRE 2400 59
INSPIRE 2600 109
INSPIRE 4.1 4400 79
INSPIRE 5.1 5700 DIGITAL 379
INSPIRE 5.1 5300 129

ALTEC LANSING ACS-48 (W/SUB) 139
ALTEC LANSING ADA-890 (S/SPEK) 399
ALTEC LANSING AVS200 (S/SPEK) 29
ALTEC LANSING AVS300 (S/SPEK) 49
ALTEC LANSING AVS500 (S/SPEK) 69
ALTEC LANSING 2100 2.1 (S/SUB) 159
ALTEC LANSING 621 (S/SUB) 219
ALTEC LANSING 641 (S/SUB) 329

YAMAHA TSS-1 279

SCSI CONTROLLERS

ADAPTEC
SERVERS & WORKSTATIONS
AVA-2906 (RETAIL) 89
AHA-2930U (PCI/RETAIL) 139
FIRECONNECT 4300 99
USB 2.0/1394 CARD 189
2400A-RAID (EIDE/RETAIL) 529
19160KIT (RETAIL) 339
29160 (RETAIL) 449
29160 (OEM / CABLE) 379
29160N (RETAIL) 419
39160 (RETAIL) 499

NOTEBOOK
AHA-1350 KIT 99
AHA-1460 PCMCIA SCSI CTRL 169
AHA-1480 PCMCIA SCSI CTRL 239
FIRE CONNECT CARDBUS 99

PROMISE
ULTRA 133 79
ULTRA TX2-100 79
FASTRAC 100 139
FASTRAC 100 PRO TX2 KIT 299
FASTRAC 100 PRO TX4 KIT 569
SUPERTRAC (S6000) 709
SUPERHOT SWAP 139
ULTRA-2 WIDE LVD CABLE 69

DESK JET / INKJET

HEWLETT PACKARD
HP DESKJET 350C 369
HP DESKJET 656 99
HP DESKJET 845C 139
HP DESKJET 920CVR 159
HP DESKJET 940CVR 239
HP DESKJET 960Cse 279
HP DESKJET 990CSE 419
HP DESKJET 995C 549
HP DESKJET CP1160 569
HP DESKJET CP1160TN 879
HP DESKJET CP1700 699
HP DESKJET CP1700PS 849
HP DESKJET 1220Cxi 549
HP DESKJET 1220C/PS 749
HP DESKJET CP1700D 839
HP DESKJET 2200 669
HP DESKJET 2250 979
HP DESKJET 2250TN 1419
HP DESKJET 2500C 1419
HP DESKJET 2500C+ 1559
HP DESKJET 2500CM 2119

BROTHER
BROTHER HL-1440 459
BROTHER MFC4800 529
BROTHER MFC6800 699
BROTHER MFC8500 609
BROTHER MFC9700 899

EPSON
STYLUS C60 149
STYLUS C80 259
STYLUS C80N 479
STYLUS C80WN 659
STYLUS 1520 679
STYLUS 3000 1359
STYLUS PHOTO 785EPX 279
STYLUS PHOTO 820 219
STYLUS PHOTO 890 419
STYLUS PHOTO 1280 689
STYLUS PHOTO 2000P 1169

CANON
S200 / S300 109 / 149
S520 / S750 189 / 279
S800 469
S820D 559
S900 549

MODEMS / PALM TOP

MODEMS
AOPEN
AOPEN 56K INT VOICE (PCI-PM) 49
3COM
USR 56K INT V.90 (PCI-HM) 119
USR 56K EXT V.92 139
USR 56K USB VOICE 209

PALM TOPS
PALM M125 299
PALM M130 399
PALM M500 429
PALM M505 499
PALM M515 559
CASIO E-125 449
CASIO EM-500 369

SCANNERS

HEWLETT PACKARD
HP SCANJET 2200C (USB) 119
HP SCANJET 4400C (USB/PAR) 149
HP SCANJET 4470C (USB/PAR) 219
HP SCANJET 5400C (USB/PAR) 269
HP SCANJET 5470C (USB/PAR) 429
HP SCANJET 5490C (USB/PAR) 529
HP SCANJET 7400C (USB) 649
HP SCANJET 7450C (USB) 899
HP SCANJET 7490C (USB) 1189

MICROTEK
SCANMAKER 3630 (USB) 99
SCANMAKER 3800 (USB) 159
SCANMAKER 4700 (USB) 229
SCANMAKER 4800 (USB) 159
SCANMAKER V6UPL (USB/PAR) 199
full "legal size" scanning 199
SCANMAKER X12USL 419

EPSON
PERFECTION 1250 (USB) 149
PERFECTION 1250 PHOTO 189
PERFECTION 1650 269
PERFECTION 1650 PHOTO 339
PERFECTION 2450 PHOTO 559

DIGITAL CAMERAS

KODAK
DX3215 ZOOM 269
DX3500 ZOOM 309
DX3600 ZOOM 399
DX3700 ZOOM 399
DX3900 ZOOM 489
BATTERIES (NIMH) 24.99

CANON

CANON DIGITAL CAMERAS
POWERSHOT A30 369
POWERSHOT A40 459
POWERSHOT A100 269
POWERSHOT G2 1159
POWERSHOT S200 549
POWERSHOT S30 709
POWERSHOT S330 639
POWERSHOT S40 899

LOGITECH
QUICKCAM EXPRESS 79
CLICKSMART 310 119
CLICKSMART 510 209
QUICKCAM PRO 3000 139
QUICKCAM TRAVELLER 179

MICRO DRIVES

IBM 340MB 199
IBM 1.0GB 369

COMPACT FLASH CARD

LEXAR (HOBIEST SERIES 4X)
32MB Upto 4x faster than regular flash cards 49
64MB Upto 4x faster than regular flash cards 69
128MB Upto 4x faster than regular flash cards 109
256MB Upto 4x faster than regular flash cards 199

LEXAR (PREMIUM SERIES 12X)
64MB Upto 12x faster than regular flash cards 69
128MB Upto 12x faster than regular flash cards 129
192MB Upto 12x faster than regular flash cards 169
256MB Upto 12x faster than regular flash cards 219
320MB Upto 12x faster than regular flash cards 949
Compact Flash USB Reader 59

LEXAR (PROFESSIONAL SERIES 16X)
192MB Upto 16x faster than regular flash cards 239
256MB Upto 16x faster than regular flash cards 309
320MB Upto 16x faster than regular flash cards 479
512MB Upto 16x faster than regular flash cards 779
640MB Upto 16x faster than regular flash cards 909

LEXAR BRAND

MEMORY STICK
32MB 49
64MB 69
128MB 119

SMART MEDIA

32MB 39
64MB 69
128MB 109
Smart Media USB Reader 59

MULTIMEDIA CARD

16MB 39
32MB 49
64MB 89
32MB 79
64MB 99
128MB 169

EXTERNAL 60GB

FIREWIRE

ATA100 * 7200RPM

 **\$329**

email:
sales@greytech.com

TAPE BACKUP UNITS

SEAGATE
EIDE
TAPESTORE 8GB (STT28000A-RFT) 289
TAPESTORE 20GB (STT220000A-RFT) 429
SCSI
TAPESTORE 8GB (STT28000N-RFT) 329
TAPESTORE 20GB (STT220000N-RFT) 499
DAT 24GB EXT. (STD624000N-SB) 1199
DAT 24GB INT. (STD224000N-SB) 999
DAT 24GB EXT. (STD624000N-RFT) 1399
DAT 24GB INT. (STD224000N-RFT) 1219
DAT 40GB EXT. (STD6401LW-R) 1849
DAT 40GB INT. (STD2401LW-R) 1649

EXTERNAL (USB)

TAPESTORE 8GB (STT681U-R) 469
TAPESTORE 20GB (STT6201U-R) 499
TAPES / CARTRIDGES
DGD125P (DDS-34MM/125) 22.99
DGD150P (DDS-34MM/150) 49.99
DGD15CL (DDS-4MM/CLEANING) 19.99
DGD120P (DDS-24MM/120) 12.99
DGR0 (DDS-4MM/90) 34.99
QTR-1/QTR-3 29.99 / 34.99
QTR-4/NS-20 39.99 / 59.99

NETWORK PRODUCTS

HUBS & SWITCHES

3COM 5 Port Hub 10/100 D/S (3C19261) 79
3COM 8 Port SWITCH 10/100 D/S (3C16794B) 139
3COM 16 Port Hub 10/100 D/S (3C16754B) 229
DLINK USB Dual Port PCI Card (DSB-500) 59
DLINK 4 Port USB Hub (DSB-H4) 49
DLINK 7 Port USB Hub (DSB-H7) 89
DLINK 16 Port Hub 10/100 (DSH-16) 249
DLINK 8 Port Switch 10/100 (DSS-8+) 89
DLINK 16 Port Switch 10/100 (DSS-16+) 199
GVC 4 Port USB Hub 49
GVC 16 Port Hub 10/100 (SS0018) 209
GVC 16 Port Hub 10/100 D/S (HB0116) 169
GVC 24 Port Hub 10/100 D/S (HB0124) 229

ROUTERS

DLINK Router 4 Port w/ PRN PORT (DI-704P) 139
DLINK Router 7 Port (DI-707) 199
DLINK WIRELESS Router 3 Port (DI-713P) 279
LINKSYS Voice Router (BEFN2PS4) 209
LINKSYS Router 3 Port (BEFSR31) 179
LINKSYS Router 4 Port (BEFSR41) 139
LINKSYS Router 8 Port (BEFSR81) 239
LINKSYS Router 1 Port (BEFSR11) 119
LINKSYS WIRELESS 4 Port (BEFW1154) 269
NETGEAR Router 4 Port (RP-114) 139
NETGEAR WIRELESS 4 Port (MR314) 359

ADAPTERS

3COM 3C905-TX (PCI) 59
DLINK 10/100 DFE-538-TX (PCI) 29
GVC 10/100 (USB/NP0390) 69
GVC 10/100 (PCI/NP0319) 19
LINKSYS PCI 10/100 (LNE100-TX) 39
SMC 1244-TX 10/100 (PCI) WWW
PCMCIA
DLINK 56K+10/100 (DMF-560TX) 209
DLINK 10/100 DFE-650-TX 79
DLINK CARDBUS DFE-680TXD 69
DLINK CARDBUS DFE-690TXD 69
GVC 56K (MD0223) 109
GVC 10/100 (NP0335) 59

WIRELESS NETWORKING

DLINK
DLINK Wireless PCI Card (DWL-500) 159
DLINK Wireless PC Card (DWL-650) 129
DLINK Wireless Access Point (DWL-1000AP) 209
DLINK Wireless USB Port (DWL-120) 149
DLINK Wireless Notebook Kit (DWL-905) 479
DLINK Wireless LAN Kit (DWL-920) 499

LINKSYS

LINKSYS WITH PRINT SERVER (BEFW11P1) 309
LINKSYS WIRELESS PCI CARD (WDT11) 79
LINKSYS WIRELESS CARDBUS (WPC11) 139
LINKSYS WIRELESS ACCESS PT (WAP11) 249
LINKSYS WIRELESS PCI CARD (WMP11) 149
LINKSYS WIRELESS USB ADP. (WUSB11) 149

E-SHOP@
www.greytech.com

NOTEBOOKS

TOSHIBA (www.toshiba.ca)
SATELLITE PRO SERIES
4600 (P3-1.0G/256/30G/14T/DVD/98) 2599
4600 (P3-1.0G/256/30G/14T/DVDW2K) 2739
6000 (P3-1.0G/256/20G/14T/DVD/98) 2509
6000 (P3-1.0G/256/20G/14T/DVDW2K) 2649
6000 (P3-1.13G/256/30G/15T/DVD/98) 2959
6000 (P3-1.13G/256/30G/15T/DVDW2K) 3099
6100 (P4-1.6G/256DDR/30G/14T CDRW-DVDW2K) 3279
PORTAGE ULTRA SERIES
2000 (P3M-750/256/20G/12T/DVDW2K) 3279
4000 (P3-750/256/20G/12T/DVD/98) 3419
4000 (P3-750/256/20G/12T/DVDW2K) 3549

TECRA SERIES

9000 (P3-933/256/20G/14T/DVD/98) 3959
9000 (P3-933/256/20G/14T/DVDW2K) 4089
9000 (P3-1000/256/30G/14T/CDRW-DVD/98) 4539
9000 (P3-1000/256/30G/14T/CDRW-DVDW2K) 4679
9000 (P3-M-1.2GHz/512/40G/14T/ CDRW-DVD/98) 5039
9000 (P3-M-1.2GHz/512/40G/14T/ CDRW-DVDW2K) 5169
9100 (P4-M-1.7GHz/256DDR/30G/14T/ DVD/XPPRO) 4399

CDR BLANKS

700MB/80MIN 2x-32x
50 Pack
Spindle
\$21.99

ViewSonic
TV TUNER
\$169
PIN:VBS0HRTV

KEYBOARD / MOUSE

MICE

LOGITECH
CORDLESS MOUSEMAN OPTICAL 99
CORDLESS MOUSEMAN WHEEL 79
IFEE MOUSEMAN 79
MOUSEMAN WHEEL OPTICAL 69
CORDLESS WHEEL MOUSE 59
IFEE MOUSE 59
TRACKBALL MARBLE MOUSE 49
WHEEL MOUSE OPTICAL 39
FIRST MOUSE WHEEL 29
MICROSOFT
INTELLIMOUSE 3.0 29
INTELLIMOUSE TRACKBALL 1.0 39
INTELLIMOUSE OPTICAL 1.1 59
INTELLIMOUSE EXPLORER 79
WIRELESS INTELLIMOUSE EXPLORER 99

KEYBOARDS

LOGITECH
CORDLESS FREEDOM OPTICAL 139
CORDLESS FREEDOM PRO 129
CORDLESS FREEDOM NAVIGATOR 109
CORDLESS FREEDOM (WITH MOUSE) 99
ITOUCH 39
INTERNET NAVIGATOR 49
MICROSOFT
MS NATURAL PRO (PS2/USB) 89
MS INTERNET (PS2) 39
MS NATURAL ELITE (PS2) 49
MS INTERNET PRO (USB) 59

Flying Montreal's ultimate flight simulator

By NESTOR GULA

The first thing that struck me about controlling the Airbus A330 was the total absence of a central yoke or wheel. There was a joystick, very similar to the one in my home, including a trigger and a second red button to my right side. I was controlling the 173 metric tonne (381,400 pound) airplane (maximum weight with no fuel) from the co-pilot's seat. The pilot's joystick was on his left-hand side. I was banking to the left to align the plane for approach to Hong Kong's new Chek Lap Kok international airport. The turbulence was not too bad, although there were thunderstorms about. Although I never really left the ground I finally had the true sensation of piloting a plane — as close to flying as I'll ever get.

Humans have not been flying for very long. The first recorded ascent from the ground upwards was a balloon flight by the Montgolfier brothers in Paris on November 21, 1783. Powered flight occurred less than 100 years ago when Orville and Wilbur Wright flew their biplane at Kitty Hawk on December 17, 1903. Not only have we not been flying

for a long time, a very small percentage of humans have ever taken to the air. And most of these sojourns have been as cattle (oops! — passengers), herded and squeezed into the bowls of large commercial aircraft. Relatively few people actually pilot an airplane.

Flying a plane is expensive — very expensive. For those who realize that they will never take to the skies, flight simulators for PCs have been around for nearly as long as there have been personal computers. The first flight simulator program I used was for my Amiga 1000 back in 1986. Looking at the latest, Microsoft's *Flight Simulator 2002*, the basic commands and controls for the Cessna 172 at least, haven't changed much. The graphics are much better and there are more airports and places to fly — after all it does come on three CDs, while the Amiga version was on a single double sided diskette.

There was always something missing, though, when running *Flight Simulator*. It is the sensation of flying — the feel of g-force on your body when the plane banks into a turn, the ordinary humdrum turbulence or the bang when the wheels hit the ground on landing.

Commercial and military pilots have sophisticated simulators at their disposal that not only mimic the sensation of flying but also recreate the special atmosphere of sitting in a real airplane's cockpit. Luckily, the company that is the world leader in flight simulator technology is Canadian.

Providing a safe place to crash

Located in Montreal just a short hop from Dorval airport, CAE Inc. supplies about 80 per cent of the world's flight simulator market. In an effort to diversify, CAE has made the move into providing actual aviation training. This is an astute move since the market for flight training is estimated to be between \$12 and \$13.5 billion worldwide. CAE is now considered to be the world's second largest independent aviation training provider. Besides designing and producing flight simulators of commercial aircraft, CAE also provides simulators and training for the military, with planes such as the CF-18 Hornet, the Tornado, the EuroFighter and helicopters such as the EHI Merlin. Not all the simulators are in the air. CAE has produced simulators for the British



Astute class nuclear submarines and the Canadian Victoria class submarines.

Sitting in the cockpit of the A330, one soon forgets that this is a simulator. Everything there is exactly like the real thing. The graphics are not exactly like in reality — although they are much better than in any flight simulation program — but you soon forget this because of the motion you feel and the realism that is around you.

The effect is like an IMAX movie. The visual system wraps around you 180 degrees. In the visual systems test bed, a non-moving simulator where the visual system is tested, you get the feeling of motion due to your senses being

Computers, Electronics, Housewares and Hardwares Auction!

Start Bid \$1 - Save up to 70% off Retail

Auction4it.com

\$1



Compaq 17" 0.25mm Trinitron
Compaq 21" USB Trinitron
Dell 19" 0.25mm Trinitron
Sony 17" 200PS 0.25mm
Start Bid \$1



Save up to 70% off
Inkjet/Toner Cartridges for
Canon/Epson/HP/Lexmark
Panafax/Pitney Bowes/Xerox



Yamaha CD-RW Kit
24x10x40 IDE/SCSI/FireWire
Internal/External
Start Bid \$1



Intel P4 2.0GHz 256MB/40GB/DVD/LAN/Snd
AMD Athlon 1.7GHz 128MB/20GB/CDRW/56K/LAN
Intel/AMD 1.2GHz 128MB/20GB/DVD/LAN
Compaq P166/64MB/3GB/LAN
Start Bid \$1



ECS 14.1" TFT/VIA 1GPro/128M
10G/CD/LAN/56K/TV
Dell P1266/13.3" TFT/128M/4G/CD
Start Bid \$1



Samsung DVD/VCD/MP3
Plays CD-R/CD-RW + 5.1 Ch
Start Bid \$1



Intel Play QX3+
Computer Microscope
USB w/Software
Start Bid \$1



Yamaha Cavit DP-U50
External Audio Soundboard
Digital Processor w/USB
Start Bid \$1



Panasonic SHOCKWAVE
Metal Headphone Radio
Digital Tuner RF-SW200
Start Bid \$1



Uniden 2.4GHz DSS Digital
Answering System & Call
Waiting/Caller ID/Spk Ph.
Start Bid \$1



MP3/CD/VCD Portable
Player w/Remote + NIMH
Support CDR + CDRW
Start Bid \$1



Cobra Microtalk2
2-way FRS Radio
w/14 Ch + 38 Sub-Ch
Start Bid \$1



Polaroid Digital Camera
w/320 Creative Kit
+ Software
Start Bid \$1



Philips Micro Action Shaver
Cordless HQ4601
Start Bid \$1



TIMEX Ironman Triathlon
Watch w/Data Link
Start Bid \$1



Polaroid OneStep Express
Instant Camera w/Flash
Start Bid \$1



3-Piece Luggage Bag
On Wheels
Start Bid \$1

Networking/Modem
8Port 10/100Mbps Switching Hub \$1
Linksys 10/100 USB EtherFast \$1
Motorola 56K PCI FaxModem \$1

Mass Storage
Compact Flash 64MB Card \$1
Firewire + USB External HDD \$1
Maxtor 40GB 7200RPM 2MB \$1
USB 64Mb Flash Keychain Drive \$1

Video/Audio Cards/Printers
AOpen 6 Channel PCI Sound Card \$1
Creative Live 5.1 PCI/AWE64 ISA \$1
ASUS/ECS/MSI Motherboard \$1
EPSON C40UX USB Color Printer \$1
Lexmark Z11 1200dpi Inkjet Printer \$1
GeForce2 MX400 64MB 128bit w/TV \$1

Upgrades/Accessories
4-Port USB Mini Hub \$1
ATX 300W Mid-Tower Pro. Case \$1
ASUS/ECS/MSI Motherboard \$1
IBM Firewire PCMCIA/PCI Card \$1
Logitech Quickcam Web + Mic \$1
Logitech Cordless Desktop/Mice \$1

Multi Media/Media
42-bit USB Flatbed Scanner \$1
CD-R 80Min 700MB 100 Packs 32X \$1
Creative Labs Inspire 5.1 System \$1
LG 32x10x40 CDRW Drive w/Adaptac \$1
LG 16X IDE Internal DVD-ROM \$1
Yamaha MS201 3Pcs Sound System \$1

Electronics
Cobra FRS220 microTALK Radios w/14 Ch and 38 Sub Ch \$1
ConairPhone Digital Tapeless Answering System \$1
Earphones with Microphone for Nokia Phone \$1
DLink DSC-350F Digital Camera/WebCam Plus USB \$1
GP Rechargeable AA 1700mAh Ni-MH batteries \$1
OSI Cable Free Thermometer w/Clock and Cable Free Sensor \$1
Panasonic Shockwave CD Player w/Anti-Shock + S-XBS \$1
Pine Portable MP3/CD Player SM30T \$1
Rand McNally Streetfinder GPS for Palm \$1
Toshiba 4 Head HiFi VCR w/181 Ch Ready + Remote Control \$1
TIMEX 22153 TMX Watch w/Mystery Answer Function \$1
Uniden 2.4GHz Cordless w/Answering System + CallerID \$1
Uniden 900MHz Cordless with Call Waiting Caller ID EX17960 \$1
Uniden 900MHz Digital Spread Spectrum 2-Line/Speakerphone \$1
Yamaha Multi Channel Home Theater Sound System TSS-1 \$1

Housewares/Hardwares
3 Piece Wheeled Luggage \$1
AudioLogic AM/FM Digital Clock Radio \$1
Moulinex CH7 Maxichef Toaster Oven w/Non-stick Interior \$1
Philips Deluxe Wafflemaker HL5360 \$1
Philips Philips Cordless Beard Trimmer HQT360 \$1
Philips Philips Double Action Rechargeable Shaver \$1
Philips Philips Hair Trimmer \$1
Philips Ladyshave HP2710 \$1
Philips Toaster Oven HL5390 \$1
Philips Twister HR1730 \$1
Proctor Silex 4 Slice Bagel Smart Toaster \$1
T-FAL Optimal Non-Stick Thermospot Frypan \$1
T-FAL Ingenio 15 pcs Space Saving + Versatile Cookware \$1
T-FAL Ultraglide Turbo Iron w/Durilium Soleplate \$1
Wagner 3/8" Variable Speed Cordless 9.6V Drill/Driver Kit \$1

Visit us @ <http://www.Auction4it.com>

Check Online for New Stock Listings - Open 24h 7 Days

New End of Line Factory Refurbished Products Arriving Daily!

New & Refurbished products backed by minimum 30-day warranty!

Email: sales@auction4it.com

Toll Free: 1-877-808-8352

Fax: 416-754-4284

The Internet should always

look

this good!

Save \$76

\$199 Annual Unlimited Plan

Save almost 30%. Prepay \$199 and your monthly rate will be less than \$17/month. Save money and enjoy a full year of service without the hassle of a monthly bill.

Save \$39

**Unlimited Buy-the-Month
\$9.95 for first 3 months**

Subscribe on a monthly basis and Look will offer you the first 3 months for only \$9.95/month.

Refer a friend:

**Receive 1 month
FREE Access!**

For each friend, family member, or colleague you refer to Look, you'll get a free month's credit on your Internet account. Visit us online at www.look.ca for more details. (up to \$22.95 per referral).

Sign up online and get more SAVINGS!

Sign up online at www.look.ca/home and Look will offer you the first 4 months at \$9.95!

home internet

5 e-mail addresses

Personalized email addresses for the whole family!

10 MB of personal web space

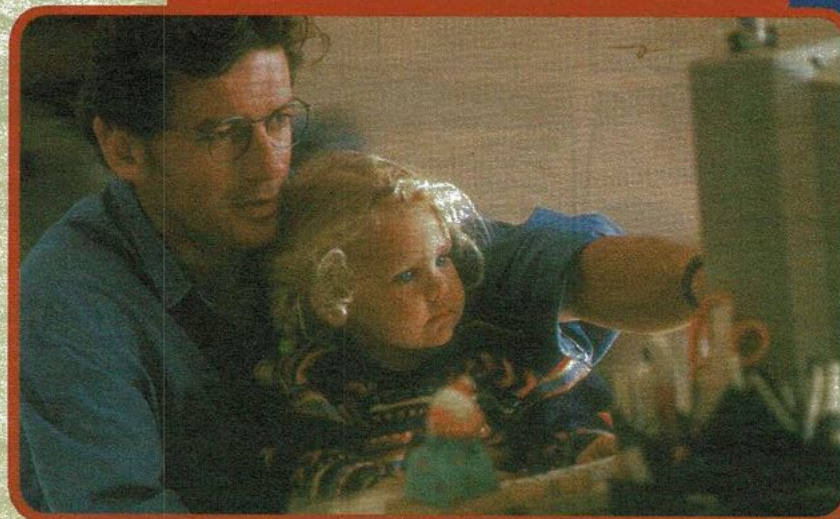
Perfect for setting up your new web page

7 days a week technical support

Need help? Our friendly staff will show you how to get online

ChildGuard Parental Filter

Protects your children each time they access the Internet



NO set up fee - PLUS -

15 Day Money Back Guarantee!



Sign-up TODAY!
www.look.ca/home
1-800-356-5665

Offer ends April 30th, 2002. Valid for new subscribers only. A credit card is required for account activation. The Buy-the-Month plan will automatically renew at the end of 3 months to Look's unlimited access plan at \$22.95. Look's offers and services are subject to our terms and conditions, including acceptable use and privacy policies which may be found at www.look.ca. Available in serviceable areas. Certain conditions may apply.

Flying Montreal's ultimate flight

continued from page 22

enveloped by the moving scenery. Philippe Perey, director of engineering for visual systems, said that the visuals are achieved through a collimated display system. The image is focused 30 to 35 feet away from the viewer (you are actually looking at a mirror – the screen is mounted above the simulator). Systems that cover 220 degrees of vision are already being made. Military applications are even more advanced, covering 240 degrees horizontal and 90 degrees vertical. There is no jerkiness in even the tiniest detail. The blowing

snow on the runway in Greenland was very realistic. According to Perey, CAE builds their own custom image generators using ATI's Radeon chips in parallel on custom cards.

Easing this 295 passenger plane into a wide turn to align it with the runway, I could feel the nose dig in and start to pitch downward. I pull back on the stick. Whoa! The engines rev up and the plane starts to climb.

Aircraft, especially commercial passenger jets, are highly automated. Captain David R. Yavner, chief simulation engineering test pilot, guided my experience on the simulator platform.

He said takeoff is the only aspect of piloting that still must be carried out manually. Pilots can switch on the auto pilot once they are between 20 and 40 metres above ground and not touch the controls until the plane has landed. Captain Yavner said most pilots perform manual landings unless the weather is very bad. When things go awry, the training and experience pay off. In a simulator, you can make any number of things go wrong and the pilot has to react to the situation. Captain Yavner simulated an engine fire on takeoff. He handled this situation calmly. There are procedures and actions performed in situations like this that can never be done by a computer.

Simulator as amusement park ride ...

Being the kind of person that I am, I ask Captain Yavner to do a barrel roll on the A330. He doesn't blink. He turns around and punches a few keys on the simulation computer at the back of the cabin and we are instantly located 10,000 feet above the South China Sea a few kilometers outside of Hong Kong. He turns off the safety features of the plane's control system and does a barrel roll. The sensation is realistic to about 65 per cent of the way. You get it going up-around and down-around. The only thing missing was the upside-down feeling.

The one thing these simulators can't really simulate is sustained g-force loads. There is only so much movement in the simulator (68 inches up and down, 120 inches side to side and back to front). It will give you a bit of the initial g-force but won't give you that sensation for very long. Gerhard Serapinms, manager of research and development for commercial simulation and training explains, "long turns can't really be simulated because you can't really simulate the sustained g-force limits given the range of motions of the simulators."

We are coming in for a landing. The visibility is zero. Well, about 100 metres – consider that we are travelling at about 260 kilometres per hour, so 100 metres is practically zero. The landing sequence is automated, so Captain Yavner is monitoring the gauges and waiting for the airport to come into view. The plane's computer starts the countdown to landing before we see anything. "Three. Two. One. Retard." The plane did not express its contempt for the pilot – this is the word Airbus chose to tell the pilot to put the engines to idle.

The landing is perfect. I leave the cockpit and from the Hong Kong airport I find myself on the floor of CAE's Montreal factory. It was a good trip. ♦



WEB HOSTING

- Managed Hosting
- Customized Servers
- Tier 1 Data Centre
- Experienced Staff
- Advantage Pricing
- Complete Solutions

www.bluecho.net

Allow us to help unlock the true potential of the Internet. Our shared and dedicated products are customized to meet your online needs. If you are looking at changing providers or launching a new web application, make bluecho your first call.

Visit us at www.bluecho.net, or call 416.445.2332 info@bluecho.net

Markham
7170 Warden Ave. #19
Tel: (905) 475-0817
Fax: (905) 475-1476
e-mail: markham@on.abn.com

Scarborough
4500 Sheppard Ave. E #102
Tel: (416) 321-9378
Fax: (416) 321-0835
e-mail: scarab@bellnet.ca

Etobicoke
248 Browns Line
Tel: (416) 253-8789
Fax: (416) 253-0981
e-mail: etoabc@on.abn.com

Office Hours:
Mon to Fri: 10:00-6:30
Sat: 10:00-5:00
SUN CLOSED

ON SITE SERVICE
Available! Check Details In-Store!

CyberDeluxe P4 System

System Includes:

- Asus P4T-E, Intel 850 Chipset ATX Motherboard,
- Intel® Pentium® 4 Processor 478 pins,
- 256MB RamBus (PC800), 184pins,
- 40GB ATA100 7200rpm Hard Drive,
- ATI Radeon VE 64MB Dual Head & TV out Video Card,
- Panasonic 1.44MB Floppy Drive,
- LG 32x10x40 CD-RW Drive,
- Sony 16X DVD Rom Drive,
- Creative Sound Blaster Live 5.1 Sound Card,
- Altec Lansing AVS-500w Subwoofer Speakers System,
- ATX Tower Case w/300w P4 Power Supply,
- (Equipped with 6 pins Aux & 4 pins +12v Power Connector)
- A-Open PS/2 Keyboard,
- Logitech Wheel Mouse Optical.

Upgrade to:
Microsoft Intelli PS/2 Keyboard.....+\$20
256MB DDR Ram (PC333).....+\$50
LG 24x10x40 CD-RW Drive.....+\$40

CyberPro P4 System

System Includes:

- Intel® Pentium® 4 Processor 478pins,
- Asus P4S 333 - M, ATX Motherboard,
- 256M PC266 DDR Ram 184pins,
- 40GB ATA100 Hard Drive,
- GeForce II MX 64MB AGP Video Card,
- Panasonic 1.44MB Floppy Drive,
- 16x10x40 CD-RW Drive,
- 10/100BT Ethernet Adapter,
- On Board AC97 Sound Audio,
- Altec Lansing AVS-300w Subwoofer Speakers System,
- ATX Tower Case w/300w P4 Power Supply,
- (Equipped with 6 pins Aux & 4 pins +12v Power Connector)
- A-Open PS/2 Keyboard,
- Logitech Wheel Mouse Optical.

Upgrade to:
Microsoft Intelli PS/2 Keyboard.....+\$20
256MB DDR Ram (PC333).....+\$50
LG 24x10x40 CD-RW Drive.....+\$40

Red Hot Deal !!

System Includes:

- Intel® CPU, w/CPU Heat Sink & Ball Bearing Cooling Fan,
- Asus TUSI-M, SIS Chipset ATX Motherboard,
- 128MB PC133 SDRAM, 168pins, 133MHz,
- 20GB Ultra DMA Hard Drive,
- 1.44MB Floppy Drive,
- up to 64MB Video,
- 17" Samsung 750S .23h 1280x1024 N.I. Monitor,
- 10/100BT Ethernet Adapter,
- 52X CD-Rom Drive,
- On Board 3D Sound Audio,
- 120W Amplified Speakers,
- ATX Tower Case w/300W P4 Power Supply,
- (Equipped with 6 pins Aux & 4 pins +12v Power Connector)
- A-Open PS/2 104keys Keyboard,
- A-Open Wheel Mouse & Mouse Pad.

Celeron 1GHz \$679

AMD BASIC SYSTEM

Duron 1000	Duron 1200	XP 1700+
\$689	\$719	\$789

System Includes:

- AMD Socket-A, ATX Motherboard, 200/266MHz
- CPU Heat Sink with Ball Bearing Cooling Fan,
- 128MB PC133 SDRAM, 168Pins, 133MHz,
- 20GB ATA100 Hard Drive,
- 1.44M Floppy Drive,
- TnT II 32MB AGP Video Card,
- 17" Samsung 750S .23h 1280x1024 Monitor,
- 10/100BT Ethernet Adapter,
- 52X IDE CD-ROM Drive,
- Integrated AC97 Audio,
- 120W Amplified Speakers,
- ATX Tower Case w/300W P4 Power Supply,
- (Equipped with 6 pins Aux & 4 pins +12v Power Connector)
- A-Open PS/2 104keys Keyboard,
- A-Open Wheel Mouse & Mouse Pad.

AMD Athlon K 7 System

System Includes:

- Asus A7V266-E, VIA Chipset ATX Motherboard,
- AMD T-B (266) CPU,
- CPU Heat Sink with Ball Bearing Cooling Fan,
- 128MB PC266 DDR Ram,
- 40GB Ultra DMA Hard Drive,
- Panasonic 1.44M Floppy Drive,
- GeForce II MX 64M 4X AGP Video Card,
- D-Link 10/100BT Ethernet Card,
- 52X IDE CD-ROM Drive,
- Integrated 6 Channel Sound Audio,
- Altec Lansing AVS-300w Subwoofer Speakers System,
- ATX Tower Case w/300W P4 Power Supply,
- (Equipped with 6 pins Aux & 4 pins +12v Power Connector)
- A-Open 104keys PS/2 Keyboard,
- A-Open Wheel Mouse & Mouse Pad,

XP 1600+	XP 1800+	XP 2000+
\$769	\$799	\$929

Upgrade to:
Altec Lansing AVS-500w Subwoofer System w/4 Speakers...+\$30

* PRICES SUBJECT TO CHANGE WITHOUT NOTICE * ALL PRICES ARE ALREADY 4% DISCOUNTED FOR CASH, MONEY ORDER & CERT. CHECK * ABC IS NOT RESPONSIBLE FOR TYPOGRAPHICAL ERROR * TRADEMARKS & LOGOS ARE PROPERTIES OF THEIR RESPECTIVE OWNERS *

MOTHERBOARDS

Asus:	Price	Intel:	Price
P4T-E (Intel 850 Chipset)	\$239	P4B850 MV (Intel 850 Chipset)	\$229
P4B-266 (Intel 845D Chipset)	\$219	P4D850 MVL (Intel 850 Chipset)	\$239
P4B-266-C (Intel 845D Chipset)	\$175	P4D850 MD (Intel 850 Chipset)	\$219
P4B (Intel 845 Chipset)	\$169	P4D850 MDL (Intel 850 Chipset)	\$235
P4S 333 (SIS Chipset)	\$149	P4D845 HV (Intel 845 Chipset)	\$199
P4S 333-VM (SIS Chipset)	\$139	P4D845 WN (Intel 845 Chipset)	\$189
P4S 333-M (SIS Chipset)	\$125	P4D845 WNL (Intel 845 Chipset)	\$199
TUSL2-C (Intel 815EP Chipset)	\$129	P4D845 BG (Intel 845 Chipset)	\$189
TUV4X (VIA Chipset)	\$115	P4D845 BGL (Intel 845 Chipset)	\$209
A7V133-C (VIA Chipset)	\$139		
A7V266-E-AA (VIA Chipset)	\$189		
A7V266-E Raid (VIA Chipset)	\$215		
A7M266 (AMD Chipset)	\$179		
A7M266-D (AMD Chipset)	\$345		

VIDEO CARDS

ATI	Price	ATI	Price
ATI All-In-Wonder Radeon 7500 64MB	\$239	ATI Radeon 8500LE DDR 128MB	\$275
ATI All-In-Wonder Radeon 8500 64MB	\$469	ATI Radeon 7000 DDR 64MB	\$129
ATI Radeon 7500LE SDR 64MB TV	\$115	ATI Radeon 7500 DDR 64MB	\$195
ATI Radeon 8500LE DDR 64MB	\$225	ATI Radeon 8500 DDR 64MB	\$270

Monthly Special !

- LG 24x10x40 CD-RW Drive \$123.45
- Epson Stylus C40UX InkJet Printer \$67.78
- Samsung ML1210 Laser Printer \$279.95
- Mustek 48bit 600x1200 USB Scanner \$77.77
- Maxtor 20GB 5400rpm Hard Drive \$98.77
- Maxtor 40GB 7200rpm Hard Drive \$129.96
- 24x 80min/700MB CD-R Disk (50 spindle) \$26.00
- 16x 80min/700MB CD-R Disk (50 spindle) \$22.00
- 10x 74min/650MB CD-RW Disk \$1.40
- 10x 80min/700MB CD-RW Disk \$1.90
- USR V.92 56K External Fax Modem (Retail) \$139.00
- Logitech Cordless Freedom Optical (KB & Mouse) \$123.50

Monitor Special: (With System Purchase Only)

17" NEC AS70 .27 1280 (3 Yrs Brand New Replacement Warranty).....	\$208
17" NEC AS75F .25 1280 "PF" (3 Yrs Brand New Replacement Warranty).....	\$236
19" NEC AS90 .26 1600 (3 Yrs Brand New Replacement Warranty).....	\$329
19" NEC AS95F .25 1600 "PF" (3 Yrs Brand New Replacement Warranty).....	\$355
21" NEC AS120 .22h 1600 (3 Yrs Brand New Replacement Warranty).....	\$717
17" NEC FE700+ .25 1280 "PF".....	\$283
19" NEC FE950+ .25 1600 "PF".....	\$470
15" NEC Multisync 1550V LCD Monitor (After \$30 Instant Rebate).....	\$549
17" Samsung 750S .23h 1280.....	\$193
17" Samsung 753DF .21h 1280.....	\$230
19" Samsung 955DF .20h 1600.....	\$359

* Price ONLY effective between May 01 - May 14, 2002 *

** Limited Quantities ** Dealer Welcome **

TORONTO

BATHURST AVE. COLLEGE ST. SPADINA AVE.

396 College St.
TEL: 416-921-0702
FAX: 416-921-9938
MON-FRI: 9:30-19:00
SAT: 10:00-18:00
SUN: 11:00-17:00

NORTH YORK

WILLOWDALE SHEPPARD E. BAYVIEW

201 Sheppard Ave. E.
TEL: 416-224-5553
FAX: 416-224-2678
MON-FRI: 10:30-20:00
SAT: 9:30-18:00
SUN: 11:00-17:00

ICCT™

TOLL FREE: 1-866-549-ICCT (4228)
Http://www.icct.ca

MARKHAM

WARDEN AVE. 14TH AVE. CROWNSTEELE DR.

20 CrownSteel Dr. #16
TEL: 905-513-9935
FAX: 905-513-8717
MON-FRI: 9:30-19:00
SAT: 9:30-18:00
SUN: 11:00-17:00

BRAMPTON

MAIN ST. BARTLEY BULL PKWY.

1 BARTLEY BULL PKWY. #24
TEL: 905-460-1339
FAX: 905-460-0464
MON-FRI: 10:00-19:00
SUN-SAT: 11:00-17:00

BEST PRICE, BEST SERVICE

POWER P4 \$1379

INTEL P4 1.8GHz FSB 400
ASUS P4T-E M/B
256MB RD-RAM
ATI RADEON 7000 32MB DDR
60GB HDD ATA-100 & 1.44FDD
300W ATX MID LongBody P4 CASE
16X DVD & 24X10X40 CD-RW
Digital S/C (ON BOARD) & 10/100 PCI NIC
17 FLAT SCREEN MONITOR
K/B SCROLL MOUSE & 600W SPK SUBWO

* 15 SAMSUNG 151S LCD	\$535	* 19 SAMSUNG 955DF FLAT	\$357
* 17 SAMSUNG 753DF	\$225	* 17 SAMSUNG 750S	\$193
* 17 KDS XF-7P FLAT	\$223	* 19 SAMSUNG 950B	\$296.99
* LEXMARK Z22 (AFTER \$30 REBATE)	\$43	* EPOX 8K3A AMD DDR333	\$169
* LITEON 32X12X40 RETAIL	\$119	* EPOX 4SDA P4 DDR W/A	\$139
* LG 16X DVD-ROM	\$69	* S.B. LIVE Audigy OEM 5.1	\$89
* P4 LONGBODY 300W CASE	\$49	* 600W SPK W/SUBWOOFER	\$19
* TYAN TIGER 200 DUAL/RAID	\$335	* SOHO 8PORT 10BASE HUB	\$28

WITH SYSTEM PURCHASE ONLY.

THUNDER PC \$1099

AMD ATHLON XP 1700+ PC-266 (1.47GHz)
MSI KT3 DDR333 M/B
256MB PC2100 DDR-RAM
GeForce2 MX400 64MB
40GB HDD ATA-100 & 1.44 FDD
16BIT PCI S/C (ON BOARD)
ATX MID TOWER 300W LONGBODY
16X DVD & 24X10X40 CD-RW
10/100 NIC & K/B & SCROLL MOUSE
17 FLAT SCREEN MONITOR

TORNADO \$799

AMD ATHLON XP 1700+
EPOX 8K3A (VIA K1333, DDR333)
256MB DDR RAM 333
ATI XPERT2000 Pro 32MB 4XAGP
40G HDD ATA100 / 1.44 FDD
ATX MID TOWER 300W
16X DVD-ROM
16BIT PCI S/C (ON BOARD)
56K V.90 FAX MODEM
K/B & SCROLL MOUSE & 600W SPK

GRAND P4 \$1849

INTEL PIV 2.0GHz
ASUS P4B266 & 512MB DDR-RAM
MSI G4 Mx440 DDR 64MB TV-OUT
40GB HDD 7200RPM ATA133
300W P4 LongBody MID CASE
1.44 FDD & 16X DVD-ROM
10/100 PCI NIC
15 SAMSUNG 151S LCD MONITOR
16BIT PCI S/C (ON BOARD)
K/B, SCROLL MOUSE & 600W SPK SUBWO

GRAND XP \$1699

AMD ATHLON XP 2000+ PC-266
EPOX 8K3A VIA K1333
512MB PC2100 DDR-RAM
MSI G4 Mx440 DDR 64MB TV-OUT
40GB HDD 7200RPM ATA133 & 1.44 FDD
16BIT PCI S/C (ON BOARD)
ATX MID TOWER LongBody 300W
24X10X40 CD-RW & 10/100 NIC
K/B & SCROLL MOUSE & 600W SPK
15 SAMSUNG 151S LCD MONITOR

SUPER PLAY \$669

AMD T-B 1.4GHz FSB 266/Tt VOL6
EPOX 8K7A AMD-761 DDR
256MB PC2100 DDR-RAM
GeForce2 MX400 64MB
20GB HDD ATA100 / 1.44 FDD
52X CD-ROM/10/100 NIC
ATX MID TOWER 300W LONG BODY
16 BIT PCI S/C (ON BOARD)
K/B & SCROLL MOUSE
600W SPK W/SUBWOOFER

OFFICE STAR \$429

INTEL CELERON 1000A
ASUS TUSI-M M/B
128MB PC-133 & 52X CD-ROM
SIS 630ET AGPset (ON BOARD)
20GB HDD ATA-100/1.44FDD
ATX MINI TOWER 300W
16BIT PCI S/C (ON BOARD)
10/100 NIC (ON BOARD)
K/B & MOUSE & SPK

BEST BUY \$599

INTEL P4 1.6GHZ FSB400MHZ
ECS P455A M/B
128MB DDR PC-2100
ECS SIS 305 32MB AGP/52X CD-ROM
20GB HDD ATA-100/1.44FDD
ATX MID TOWER 300W
LONGBODY
16BIT PCI S/C (ON BOARD)
10/100 NIC (ON BOARD)

SUPER UPGRADE \$455 (WITH INSTALLATION)

INTEL P4 1.5GHZ FSB 400MHZ
ECS P4ITA2 4XAGP 2USB
256MB RAMBUS PC-800

\$359 (WITH INSTALLATION)

AMD ALTHLON 1.4GHZ+ Tt VOL 6
ECS K7VMA 4XAGP 2USB
256MB SD-RAM PC-133

COOL VALUE \$759

INTEL P4 1.7A GHZ
MSI 645E DDR 333
256MB DDR PC-2700 (DDR333)
ATI XPERT 2000 32M PRO 4XAGP
20GB HDD ATA-100 & 1.44 FDD
ATX MID TOWER 300W LONGBODY
52X CD-ROM/16 BIT S/C (ON BOARD)
10/100 NIC
K/B & MOUSE & 600W SPK SUBWO

SOHO P4 \$789

INTEL PIV 1.6A Ghz
EPOX 4SDA (DDR 333 READY)
256MB DDR PC-2100
GeForce2 MX400 64MB PURE
20GB HDD ATA100 & 1.44FDD
300W P4 LongBody MID CASE
16X12X40 CD-RW/10/100 NIC
16BIT PCI (ONBOARD)
K/B SCROLL MOUSE & 600W SPK

MONITOR

17 KDS XF-7P	\$229
17 SAMSUNG 750S	\$197
17 SAMSUNG 753DF	\$228
17 LG 775FT 1280X1024 0.24	\$283
17 LG 795FT 1600X1200 0.24+	\$359
17 VIEWSONIC E 70 f 0.25	\$265
17 VIEWSONIC G75F 0.25 1600X1200	\$303
17 NEC FE700+ 0.25	\$282
19 VIEWSONIC P1790 0.25	\$499
19 VIEWSONIC G90F 0.25	\$447
19 VIEWSONIC E90F 0.23	\$397
19 SAMSUNG 950B 0.22H	\$299
19 SAMSUNG 955DF	\$363
19 SAMSUNG 900NF	\$530
19 NEC FE 950+	\$469
19 NEC FP 955	\$565
19 SONY G410R	\$679
19 SONY G420S	\$709
15 SAMSUNG 570V TFT LCD	\$535
15 SAMSUNG 151S TFT LCD	\$545
15 NEC 1550V TFT LCD	\$529
15 VIEWSONIC VX 500 TFT LCD	\$759
17 VIEWSONIC VE 170 TFT LCD	\$1025
18 NEC 1850E TFT LCD	\$1189

HARD DRIVE

20 GB MAXTOR 5400 rpm	\$94
40 GB MAXTOR 5400 rpm	\$106
61 GB MAXTOR 5400 rpm	\$136
81 GB MAXTOR 5400 rpm	\$183
120GB MAXTOR 5400 rpm ATA133	\$269
160GB MAXTOR 5400 rpm ATA133	\$389
20 GB MAXTOR 7200 rpm 2MB	\$107
40 GB MAXTOR 7200 rpm 2MB	\$122
60 GB MAXTOR 7200 rpm 2MB	\$150
80 GB MAXTOR 7200 rpm 2MB	\$195
40 GB IBM 7200 rpm	\$133
60 GB IBM 7200 rpm	\$158
80 GB IBM 7200 rpm	\$202
120 GB IBM 7200rpm ATA100	\$339
Adaptec ULTRA160 19160 SCSI	\$255

CDROM&DVD

52X SONY	\$41
52X LG IDE CD-ROM	\$37
52X CREATIVE CD-ROM	\$44
16X LITEON DVD	\$66
16X LG DVD	\$67
16X SONY DVD	\$69
16X TOSHIBA DVD	\$72
16X PIONEER DVD (TARY)	\$74
16X PIONEER DVD (SLOT)	\$83
LS 120 FLOPPY	\$89
ZIPDRIVE INT 100MB/250MB	\$63/\$108

MAINBOARD

SOCKET 370	
ASUS TUV4X UDMA100	\$109
ASUS TUSL2-C i815EP	\$126
ASUS TUSI-M ALL-IN-ONE	\$88
SOCKET 423 (P4)	
ASUS P4T	\$168
ASUS P4T-M	\$185
SOCKET 478 (P4)	
ASUS P4T-E RDRAM WOA	\$223
ASUS P4T-E RDRAM WA	\$232
ASUS P4B SDRAM	\$158
ASUS P4B-266 / C	\$208/\$167
ASUS P4S-333 WA	\$145
ASUS P4S-333-M W/AL	\$118
ABIT TH7-II / RAID	\$265 / \$306
MSI 645E MAX2 DDR333	\$115
SOCKET A	
ASUS A7M266-D	\$197/\$336
ASUS A7V266-E/RAID	\$178/\$204
ASUS A7V-333	\$186
ASUS A7V-333 RAID	\$213
ASUS A7N266 (AUDIO) /-E	\$251/\$269
ABIT KR7A / RAID	\$210 / \$255
MSI KT3 ULTRA ARU	\$190
MSI KT3 ULTRA DDR333 (VIA K1333)	\$142
ECS K7S5A	\$85

VIDEOCARD

ATI DV WONDER	\$62
ATI XPERT 2000 32MB PRO (Original)	\$53
ATI A-IN-W RADEON 7500	\$250
ATI A-IN-W RADEON 8500	\$483
ATI RADEON 7000 32MB	\$98
ATI RADEON 7000 64MB DDR TV/OUT	\$125
ATI RADEON 7500 64MB DDR Retail	\$190
ATI RADEON 8500LE 128DDR V/O	\$289
ATI RADEON 8500 64MB DDR D/H	\$255
ATI RADEON 8500 128DDR D/H V/O	\$379
ASUS V7700TI 64M DDR Pure VX	\$182
ASUS V7700 TI 64M DDR DELUX	\$250
ASUS V8200 T5 GF3 64M Pure	\$403
ASUS V8200 T5 GF3 64M Deluxe	\$453
ASUS V8440 G4 T4400 128DDR TV/O\$459	
ASUS V8460 G4 T4600 128DDR TV/O\$629	
ABIT GF2MX40064MB/TVOUT	\$94/\$116
PINE 32MB PCI TNT2 M64 RE	\$57
PINE 32MB AGP TNT2 M64 RE	\$49
PINE GF2 Mx200 32MB W/TVOut	\$75
PINE GF2 Mx400 64MB / TVOut	\$92/\$102
MSI G4 Mx420 64MB SDR TVOUT	\$129
MSI G4 Mx440 64MB DDR TVOUT	\$150
MSI G3 T1200 64MB DDR VIVO	\$229
MSI GF4 T4400 128MB DDR VIVO	\$429
MSI GF4 T4600 128MB DDR VIVO	\$565

FAX-MODEM

56K V.90 VOICE/FAX PCI	\$16
56K AOPEN V.92VOICE/PCI	\$36
56K USR 2977 HDW PCI O/N	\$68
56K USR 2976 HDW PCI W/V	\$83
56K HP USB EXT	\$52

SCANNER

ACER 4300U/5000U	\$69/\$99
CANON N640EPX	\$94
CANON D660U/670U	\$179/\$134
CANON 1250U2/1250U2F	\$179/\$267
CANON N1240U / D2400UF	\$268/\$255
EPSON 1250 / PHOTO	\$130/\$173
EPSON 1650 / PHOTO	\$262/\$335
EPSON 2450 PHOTO	\$545

PRINTER

EPSON INKJET C40UX	\$60
EPSON InkJet C60	\$133
EPSON InkJet C80	\$248
EPSON Stylus Photo 1280	\$666
EPSON Stylus Color 1520	\$648
CANON S200	\$76
CANON S300	\$133
CANON S520	\$179
CANON S750	\$267
CANON S800	\$445
CANON S900	\$536
LEXMARK Z22 (\$30 REBATE)	\$73
LEXMARK Z33	\$83
LEXMARK Z43	\$115
LEXMARK Z53	\$149
HP DESKJET 845C	\$123
HP LASERJET 1200	\$569
HP PHOTOJET 1000	\$289
HP 940C	\$229
BROTHER HL 1230 12ppm	\$308
BROTHER HL 1440	\$435
BROTHER HL 1450	\$526
BROTHER HL 1650	\$806
SAMSUNG ML-1210	\$279
SAMSUNG ML-1250	\$327

SPEAKER

Altec Lansing AVS200	\$20
Altec Lansing AVS300	\$41
Altec Lansing AVS500	\$60
CAMBRIDGE FPS 1600	\$75
CAMBRIDGE Inspire 4400	\$78
CAMBRIDGE (Inspire2.1)2400	\$51
CAMBRIDGE (Inspire5.1)5300	\$121
CAMBRIDGE (Inspire5.1)5700	\$361

CD-WRITER

YAMAHA 20X10X40 IDE RETAIL	\$175
SONY 24X10X40	\$110
PLEXTOR 24X10X40 IDE RETAIL	\$189
PLEXTOR 40X12X40 IDE RETAIL	\$221
LG 24X10X40 W/SW	\$104
LG 32X10X40 W/SW	\$116
LITEON 32X12X40 CD-RW OEM	\$114
LITEON 32X12X40 IDE Retail	\$122
LITEON 40X12X48 IDE Retail	\$140

NETWORKING

SMART LINK 10/100 NIC	\$11
D-LINK DFE-538TX NIC	\$18
3 COM 10/100 NIC(3C905C)	\$52
LINKSYS BEFSR41 ROUTER	\$126
LINKSYS WIRELESS ROUTER	\$258
USR 8000 4PORT ROUTER	\$115
D-LINK 5PORTS 10/100 HUB	\$79

SOUNDCARD

16BIT SOUND CARD PCI	\$12
32BIT PCI SOUND CARD	\$16
S.B. 16BIT PCI	\$22
S.B. 128BIT PCI	\$24
S.B. LIVE 5.1 OEM	\$45
S.B. LIVE Audigy OEM 5.1	\$90
S.B. LIVE Audigy MP3+ 5.1	\$131
S.B. LIVE Audigy X-GAMER 5.1	\$131
S.B. LIVE Audigy PLATINUM 5.1EX Re	\$263
S.B. LIVE Audigy PLATINUM 5.1EX Re	\$335

Musical Odyssey: Sounding off with MIDI

By NESTOR GULA

The term MIDI is often confused with digital audio. MIDI, which stands for Musical Instrument Digital Interface, is just a computer language that transmits information between musical instruments. This information is primarily what note the receiving instrument should play and for how long and with what intensity and colour. There is other information that MIDI can also send, such as system specific messages that tell the machine to switch to another sound or to change parameters of the instrument — for example, switching between mono and polyphonic modes. But how do you generate these messages to make your computer, or keyboard, play some notes?

A synthesizer with MIDI is both a musical instrument and a MIDI controller. A simple MIDI hookup is two synthesizers connected, with one having the MIDI cable in the MIDI-OUT port and the other in the MIDI-IN port. The first synthesizer is called the master, while the latter is the slave. The master

synthesizer must have its MIDI-SEND set to the same channel as the slave's MIDI-RECEIVE. I have this set up in my home. My DX7, which is polyphonic but only monotimbral, meaning that while it will play many notes at the same time it only plays one sound, is connected to a TX7 sound module (basically a DX7 without the keyboard). When I hit the middle C on my DX7's keyboard, I will hear two sounds both playing the middle C. The DX7 is controlling the functions of the TX7. Incidentally, the DX7 and TX7 are synthesizers made by Yamaha in the late '80s that use FM modulation to produce sounds.

When I want to record some MIDI tracks on my home recording studio, I connect the MIDI cable between the MIDI-OUT port on my synthesizer and the MIDI-IN port on my computer. The notes I play on the keyboard are recorded by the recording software as raw information. There is no sound associated with it. I can change the sound of what I played using the software. If I played something and it sounded like a piano, it is really no problem to switch

it to birds chirping or tubular bells or a funky bass sound. There are at least 128 sounds in the General MIDI synthesizer that is in the soundcard of every computer. If you have more sophisticated software that allows you to have plugins of virtual synthesizers, which mimic the sounds of "real" synthesizers, then you will have a limitless supply of sounds.

If you have a MIDI track recorded on your computer and would like it to be played on your computer you would reverse the position of the MIDI cables. In this case the computer is the master while the synthesizer is the slave, and what you have on the computer will be translated by the synthesizer to sound. If you have a particularly intricate MIDI track on your computer that you want to record using the sound of your stand-alone synthesizer, you will need to attach audio cables to your synthesizer and have your software record the sound as digital audio.

While controllers tend to be keyboards, they do not always have to be so. There are guitar MIDI controllers and

even controllers made from woodwind, brass and various stringed instruments. Artist Laurie Anderson used to have a jacket wired up with switches, which she would hit, triggering a MIDI device. I've used my drum machine as both a MIDI controller and a MIDI-slave.

Synthesizers are popular as MIDI controllers simply because they are so versatile. They have a keyboard for entering notes, wheels and buttons for adding colour and texture to the notes — this is a MIDI recognized function, and they create great sounds, much better than most computer's General MIDI sounds. If you do not have any keyboard skills and do not want to learn any, you can still benefit from the great synthesizer sounds by using a sound module. As described earlier, this is a synthesizer without the keyboard. You can manually compose whatever you like in most recording software packages or use special notation software, and when you hit play, after making sure all the cables are connected properly and the settings set just right, you will hear what you composed. ♦

1ST EVER COOL TUNES CONTEST

presented by **Toronto computes!**
The technology lifestyle magazine

WINNERS

WILL RECEIVE

RADIO AIRPLAY ON

NEW ROCK
edge
102

PRIZE POOL HARDWARE PRIZES



HONOURABLE MENTIONS SOFTWARE PRIZES



APPLICATION FORM

Name:
Address:
Postal Code:
Phone:
E-mail:
Age:

Occupation/School:
Title of entry:
Equipment used to record
Composition:
Signature:
Date:

RULES AND REGULATIONS

1. You may submit up to three (3) original compositions. Each composition submitted must be your own original work. Compositions may not exceed five (5) minutes in length. A completed and signed application must accompany each entry. Contestants must submit all entries in MP3 format and burned on a CD. CDs will not be returned. Compositions previously recorded and released will be disqualified. Compositions using samples of previously recorded material will be disqualified unless accompanied by a release waiver from the original artist.
2. This contest is open to amateur unsigned acts. All genres of music will be considered. Employees and families of Toronto Computes!, its parent company, subsidiaries and affiliates are not eligible. Contestants must be Canadian citizens or have landed immigrant status.
3. Winners will be chosen by a select panel of judges and will be judged based on melody, composition and lyrics (where applicable). The quality of performance and production will also be considered.
4. The first place winner will have first choice from the prize pool. The second place contestant will have the remaining prize. Honourable mentions will be awarded as the judges see fit.
5. By submitting compositions and the signed entry form to this contest the entrant claims that their composition is original work and he/she holds all rights to the composition. The contestant also agrees to give Toronto Computes!, its parent company and subsidiaries the non-exclusive right to use the compositions for future advertising and publicity purposes without additional compensation for a period of two (2) years from the date of the contest's closing date.
7. All entries must be postmarked by 5 PM EST August 2, 2002. Winners will be chosen by August 16, 2002. Winners will be contacted for their choice of prize. Results will be announced in the September issue of Toronto Computes!
8. All decisions of the judges are final.
9. Mail entries to Toronto Computes! Cool Tunes Contest 625 Church St., Suite 600, Toronto, Ont. M5V 2G1

www.canadacomputes.com/cooltunes

May Special

ALL ITEMS ARE CASH PRICES &
ALREADY 3% CASH DISCOUNTED :-)

Price Only Effective Between May 01 -15 '2002

Main board

ASUS	
TUSIM Socket370 MicroATX	\$102
TUV-4X Socket370 ATX	\$125
P4S333M Pen.4 Socket478	\$137
P4S333VM Pen.4 Socket478	\$147
P4TE Pen.4 Socket478	\$254
P4B266 Pen.4 Socket478	\$235
A7A133 Socket A	\$128
A7V333 Socket A	\$207
A7N266 Socket A	\$218
ELITEGROUP	
K7SEM-266 Socket A	\$97
K7S5A Socket A	\$99
K7S6A Socket A	\$117
P455A Pen.4 Socket478	\$116

VIA	
P4XBA Pen.4 Socket478	\$130
P4PA Pen.4 Socket478	\$174

Hard Drive

Seagate	
40GB/7200 ST340824A	\$140
60GB/7200 ST360021A	\$176
80GB/7200 ST380021A	\$208

Western Digital	
20GB/7200 200BB	\$121
40GB/7200 400BB	\$141
60GB/7200 600BB	\$182
80GB/7200 800BB	\$215
120GB/7200 1200JB	\$359

Maxtor	
40GB/5400 4K040H2	\$123
61GB/5400 96147H8	\$157
20GB/7200 6L020J1	\$127
40GB/7200 6L040J2	\$141
60GB/7200 6L060J3	\$177
80GB/7200 6L080J4	\$213

Video Card

Power by ATI OEM Version	
XPRT 98 8MB OEM	\$30
TV Wonder PCI NTSC AMC	\$98
RADEON 7000 64MB AGP	\$81
RADEON 7500 64MB AGP	\$131
RADEON 8500 64MB AGP	\$218
A-I-W 7500 64MB AGP	\$258
RETAIL BOX	
TV Wonder USB Edition	\$128
RADEON 7000 64MB DDR	\$129
RADEON 7500 64MB DDR	\$217
RADEON 8500LE 128MB DDR	\$322
RADEON 8500 128MB DDR	\$424
A-I-W 7500 64MB DDR	\$280

PINE	
TNT2 M64 32MB PCI	\$67
GeForce2 MX400 64MB	\$87
GeForce3 T5 64MB/TV Out	\$479
GeForce4 MX440 64MB/TV Out	\$162

Leadtek	
GeForce4 Ti4400 128MB DDR	\$470
GeForce4 Ti4600 128MB DDR	\$600
ASUS	
GeForce4 MX440 64MB DDR	\$182
GeForce4 Ti4400 128MB DDR	\$483
GeForce4 Ti4600 128MB DDR	\$640

Scanner

Mustek	
1200UB 600x1200dpi 48bit	\$77
1200CU 600x1200dpi 48bit	\$100

Canon	
N640Pex 600x1200dpi 42bit	\$105
N670U 600x1200dpi 42bit	\$148

CDR CDRW & DVD

LG Electronics	
YAMAHA	
PLEXTOR	
LG 52X IDE CD Rom	\$42
SONY 52X IDE CD Rom	\$44
Mitsumi 4x8 CD-RW Ext. USB	\$90
Mitsumi 24x10x40 Ext. USB2.0	\$231
ARTEC 20x10x40 CD-RW IDE	\$115
Samsung 24x10x40 CD-RW IDE	\$117
LG 8240B 24x10x40 CD-RW IDE	\$117
LG 8320B 32x10x40 CD-RW IDE	\$129
SONY 24x10x40 CD-RW IDE	\$121
Acer Benq 40x12x48 CD-RW IDE	\$155
Plextor 40x12x40 CD-RW IDE	\$249
Sony 16X DVD IDE	\$80
LG 8160B 16X DVD IDE	\$77
Pioneer 16X DVD IDE(Tray)	\$77
Pioneer 104 DVD-Ram IDE	\$630

Speakers

AOpen MS-608 Speakers	\$13
AOpen MS-805 Speakers	\$35
Benwin CLT3 Spk w/Sub	\$29
MicroLab M200 Spk w/Sub	\$50

AVS-200 7W Speakers	\$27
AVS-300 7W w/Sub	\$56
AVS-500 14W w/Sub	\$79
621 2.1System w/Sub	\$179
641 4.1System w/Syb	\$240
2100 2.1System w/Sub	\$121
4100 4.1System w/Sub	\$180

SOUNDWORKS	
Inspire2.1 2400 w/Sub	\$57
Inspire2.1 2600 w/Sub	\$113
Inspire4.1 4400 w/Sub	\$84
Inspire5.1 5300 w/Sub	\$139
Inspire5.1 5700 w/Sub	\$399

Sound Card

CREATIVE	
SOUND	
Creative PCI 128 oem	\$29
Live 5.1 oem	\$54
Audigy 5.1 oem	\$101
Audigy MP3 +	\$142
Audigy Gamer	\$142
Audigy Platinum	\$281
Audigy Platinum eX	\$353

Network Products

D-Link	
D-Link 530TX Ethernet 10/100BT	\$20

SURECOM	
508T 8-port 10BT Hub	\$39
805X-R 5-port 10/100BT Hub	\$59
808X-N 8-port 10/100BT Hub	\$76
EP428X PCMCIA 10/100 Lan	\$48

NETGEAR	
DS104NA 4-port 10/100 Hub	\$69
DS108NA 8-port 10/100 Hub	\$109
FS105NA 5-port 10/100 switch	\$80
FS108NA 8-port 10/100 switch	\$112

LINKSYS	
BEF-SRU31 3-port Router	\$176
BEF-SR41 4-port Router	\$138
BEF-SR81 8-port Router	\$244

WIRELESS NETWORKING	
WPC11 PCMCIA Network Card	\$138
WMP11 PCI Network Card	\$154
WUSB11 USB Network Adapter	\$138
WAP11 Access Point	\$242
BEF-W11P1 Router+PrintServer	\$311
BEF-W11S4 4-port Router + AP	\$270

External Case

2.5" H/D IDE-USB Case	\$79
IDE-FireWire Ext. Case	\$150
H/D IDE-FireWire Case	\$150
CD Rom IDE-USB Case	\$94
2.5" H/D IDE-USB2.0 Case	\$154
IDE-USB2.0 Ext. Case	\$125
SCSI External Case	\$64
SCSI III External Case	\$94

Monitors

LG Electronics	
17" 700S 1280 .27	\$198
17" E700B 1280 .25	\$235
19" E900B 1600 .25	\$363
19" 995FT 1600 .24	\$418
15" 563LE 1024 LCD	\$576
17" 782LE 1280 LCD	\$974

ViewSonic	
17" E70f 1280 .25	\$270
17" E75f 1600 .25	\$297
19" E90 1600 .27	\$370
19" E90f 1600 .25	\$412
19" G90f 1600 .25	\$466
15" VG151 LCD	\$681
TV Tuner VB50HRTV	\$164

NEC	
17" AS70 1280 .27	\$223
17" FE700+ 1280 .25	\$293
19" AS90 1600 .26	\$351
19" FE950+ 1792 .25	\$490
15" LCD1550V	\$602
15" LCD1550V-BK	\$602
15" LCD1550X	\$786
17" LCD 1700V	\$999
18" LCD 1850E-BK	\$1289

HYUNDAI

17" LCD L70A	
17" Viewable	
Analog/Digital(DVI) Support	
350:1 Contrast Ratio	
1280x1024@75Hz	
3yrs. Warranty	
\$886	

LG Electronics

GCC-4120B	
CD-RW: 12x8x32	
DVD: 8x	
2mb Buffer	
IDE Combo Drive	
Buffer Under Run Proof	
\$130	

SMC Networks

7004ABR	
4-Port 10/100 Cabel/DSL Router	
with PrintServer	
\$119	

PLEXTOR

PlexWriter	
40 12 40A	
40x12x40 CD-RW	
4MB Buffer	
Internal IDE Kit	
\$249	

Pentium4 Starter Series

- ECS P4VMM VIA Socket478 M/B	
- 256MB DDRAM	
- ATX 300W Mid Tower Case	
- 1.44MB Panasonic Floppy	
- 40GB 5400rpm Hard Drive	
- On-Board Video	
- On-Board Audio & Lan	
- 17" Samsung 750S Monitor	
- LG 52x IDE CD Rom Drive	
- PS/2 101Keys Keyboard	
- PS/2 Wheel Mouse	
- Labtec SS-100 Speakers	

Pentium4 1.6A GHz	\$929
Pentium4 1.8A GHz	\$1019
Pentium4 2.2A GHz	\$1399

Pentium4 CDR-W Series

- ECS P4S5A SIS645 Socket478 M/B	
- 256MB SDRAM PC133	
- ATX 300W Mid Tower Case	
- 1.44MB Panasonic Floppy	
- 40GB 7200rpm Hard Drive	
- GeForce2 MX200 32MB AGP	
- On-Board Audio	
- 17" LG E700B Flatron Monitor	
- Samsung 24x10x40 IDE CDRW	
- 56K V.90 PCI Fax Modem	
- PS/2 Internet Keyboard	
- PS/2 Wheel Mouse	
- MicroLab M200 Spks. w/Sub	

Pentium4 1.6A GHz	\$1219
Pentium4 1.8A GHz	\$1319
Pentium4 2.2A GHz	\$1699

Pentium4 Platinum Series

- ASUS P4S333M Socket478 M/B	
- 256MB DDRAM 333MHz	
- ATX 300W Mid Tower Case	
- 1.44MB Panasonic Floppy	
- 60GB 7200rpm Hard Drive	
- GeForce4 MX400 64MB TV-Out AGP	
- On-Board Audio	
- On-Board Lan	
- 15" NF-1500MA LCD Monitor	
- LG 4120B DVD/CD-RW Drive	
- 56K V.90 PCI Fax Modem	
- Slim PS/2 Internet Keyboard	
- PS/2 Wheel Mouse	

Pentium4 1.6A GHz	\$1729
Pentium4 1.8AGHz	\$1819
Pentium4 2.2AGHz	\$2199

AMD Starter Series

- ECS K7SEM-266 SIS730S SocketA M/B	
- 256MB PC133 SDRAM	
- Mid Tower Case w/300W PS	
- 1.44MB Panasonic Floppy	
- 40GB 5400rpm Hard Drive	
- On-Board Video	
- 17" Samsung 750S Monitor	
- LG 52X IDE CD ROM Drive	
- On-Board Audio & Lan	
- 56K V.90 PCI Fax Modem	
- PS/2 101Keys Keyboard	
- PS/2 Wheel Mouse	
- Labtec SS-100 Speakers	

Duron 1.2GHz	\$809
AthlonXP 1800+	\$919

WWW.

LOGIC COMPUTER HOUSE.COM

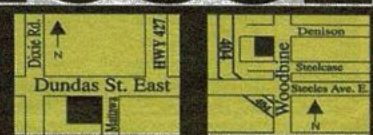
Store Hours:

Mon-Fri.	10:00a.m - 9:00p.m.
Sat.	10:00a.m - 6:00p.m.
Sun.	12:00p.m - 5:00p.m.

- Government &
Corporate PO's Accepted
- Dealers are Welcome

WAREHOUSE OUTLET
7310 Woodbine Avenue
(Woodbine & Denison)
TEL: (905) 415-0909
FAX: (905) 415-0911

MISSISSAUGA LOCATION
1590 Dundas St. E.
(Hwy 427 & Dundas)
TEL: (905) 276-9995
FAX: (905) 276-5108



Some products not exactly as illustrated & while quantities last - We reserve the right to limit quantities - Logic Computer House disclaims any proprietary interest in trademarks or trade name except it's own - Price and availability are subject to change without notice - OAC Based on a 36 month term - All Sales already 3% cash discounted - Any other form of payment will be cash discounted price plus 3% - 15% re-stocking charge. All sales are final.

Digital Shots: Getting and making prints

By CHRIS TALBOT

It's one of those sad but true realities — most digital photographs are never seen by anybody but their creator. Once the photos are snapped and transferred to a hard disk or backup medium, they are left to the evils of obscurity in electronic heaven, which begs the question: What was the point in taking the pictures in the first place?

No matter how you display your photographs, you should drill the one cardinal rule of photography into your head: Pictures are meant to be seen. Take a look around your house, your parents' house, friends' homes, etc. Framed pictures clutter mantles, end tables and the like. If you look carefully (or ask), there are probably photo albums filled with hundreds of pictures scattered around as well (but remember, if your buddy drags out his 10-pound vacation albums, you deserve what you get).

The Web masters among our readership will probably send me nasty e-mails stating they share their pictures with the world, and who am I to argue? One acquaintance of mine has archived more than 500 photos on his Web site. We'll look at creating a Web-based photo album another month, though.

There is a good argument for making and displaying prints (at the very least in your home), something film photographers take for granted and most digital photographers don't take advantage of. Chances are, you don't have a darkroom or a photo processor in your home, but you probably have the two most basic pieces of technology for making prints — a computer and a printer. Depending on the printer, you might not even need the computer. Some photo quality printers on the market are capable of reading CompactFlash or SmartMedia memory cards and printing directly from them.

Do it yourself

The first option for making prints is to do it yourself at home. If you were shooting film, you'd require a darkroom with all the bells, whistles and acids involved in making your own prints come to life. You can be thankful that you're working with the latest and greatest technology has to offer, so a darkroom isn't even recommended.

What you will need is a computer and a printer. The specs on your computer won't matter too much. Anything more or less recent should be fine. It's the printer you need to worry about. Not just any old printer will do.

When looking for a printer, the words "photo quality" are key. If a printer can't print photo quality images, then you probably won't be happy with the results. A colour inkjet printer might do wonders with those Garfield comic strips you've been printing off the Web, but photo quality images require a special kind of ink. Many inkjets come with the ability to use photo-quality ink cartridges, which are easily swappable with the regular colour ink cartridges. Just make sure the right one is in there when you start to print out your pictures.

Printing images isn't quite as easy as one-two-three, but close enough. The first thing you need to remember is to set your resolution properly. Resolution, the quality of the image itself, is usually measured in dots-per-inch (dpi). Images stripped off the Web are typically not suitable for printing because they have (or should have) a resolution of 72 dpi, which is what most monitors have as a maximum resolution.

On paper, though, pictures should be printed with at least 200 dpi, and preferably 300 dpi (this is what magazines and newspapers use). Using 300 dpi should, depending on the printer, give you a nice, clean image

on paper.

All of the major printer manufacturers make good photo-quality colour inkjet and laser printers.

Unfortunately, the most persistent problem is in the archivability of photographs. What

that means is, if you took a photo printed on an inkjet printer and held it under a light source for years, the colour would fade and the image would eventually look terrible.

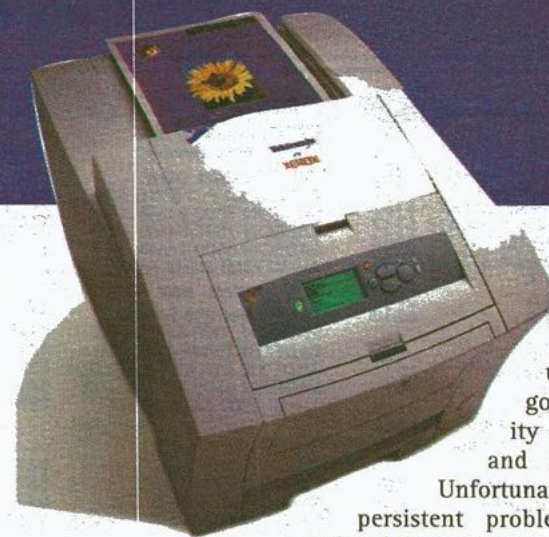
Some printer manufacturers claim they have printers that greatly increase the archivability of prints. Many of these, like Xerox's line of solid ink printers, are out of the price range of the average person, though.

Hire the pros

Archivability isn't as much of an issue with professional prints (i.e. photographs). Typically, you can hang a print on a wall and its colour will outlast you ... and maybe your children's children, as well.

Dropping off a roll of film and picking up a set of prints one, three or five days later is something most photographers are used to. Although print developers are just starting to advertise the fact that they do indeed print digital photographs, many of them have been doing it for some time. Best of all, it's about the same price as getting a print made from a negative.

Also, the printers used in processing labs are high-end units. They can pump out hundreds or even thousands of photographs per hour with superior quality. If you have a digital shot with a high enough resolution, it might look like a film print when it's returned to you. ♦



Make HP the heart of your digital darkroom



USB

231 MegaPixels
8MB memory
2x digital zoom

299⁹⁹
For as low as **\$10 A MONTH!**

HP Photosmart D316R. 2512464

A digital camera that's loaded with great features: auto exposure, red-eye reduction and more. PC or Mac compatible—transfer photos quickly and easily!

Use your memory card for direct access
Memory cards sold separately

299⁹⁹
For as low as **\$10 A MONTH!**

Digital photo printing with the HP Photosmart 1115.

- Up to 2400 x 1200 dpi
- 12 ppm black, 10 ppm colour

2512136

Scans at 600 x 1200 dpi

599⁹⁹
For as low as **\$17 A MONTH!**

PSC 950. 2512561
Printer, scanner, copier and flatbed fax.

- Prints at 2400 x 1200 dpi, at up to 12ppm in black, 10ppm in colour
- Direct photo printing

RadioShack

www.RadioShack.ca AOL Keyword: RadioShack

Tested: Fujifilm FinePix 2800 Zoom

By CHRIS TALBOT



The Fujifilm FinePix 2800 Zoom is a compact, lightweight camera capable of taking still images or short video clips and is able to double as a Webcam on

Windows platform computers.

As part of Fujifilm's mid-range digital camera line, the 2800 Zoom is a 2.1 megapixel camera that has 6x optical zoom, 2.5x digital zoom and a 1.8-inch LCD display. Other features include 60-second video clips captured in AVI (compressed JPEG) format, 30-second voice captioning and Adobe PhotoDeluxe 4.0 software.

Despite its small size and box-like shape, the 2800 Zoom offers a comfortable grip and is easy to use out of the box. The unit uses SmartMedia storage cards (a 16 MB card is included) and requires four AA Alkaline batteries for operation. Overall, it's a good, compact model you could use to capture decent snapshots.

I particularly like the attempt by Fujifilm to simulate a single lens reflex (SLR) eyepiece. Looking through the eyepiece (or on the LCD display if it's on) will show you exactly what the lens sees. The menus on the camera are fairly easy to navigate, but the placement and design of the directional buttons could have been better. Instead of the three directional buttons on the unit (left, right and up/down), I would've preferred either four buttons (like the arrow keys on a keyboard) or one button (like the directional button on a gamepad). None of the above reasons are enough to discount the FinePix 2800 Zoom as a good mid-range camera, though. For snapshots, it'll do the job. At 2.1 megapixels, however, it won't be enough power for the serious hobbyist. For vacationers, I'd recommend it for its size and weight (9.5 ounces). It's priced at \$790, but set aside at least another \$50 to \$100 to pick up a bigger memory card. ♦

more INFO

FinePix 2800 Zoom
Fujifilm
www.fujifilm.com
\$790

REVIEWS

P-II 350Mhz \$79	Altec Lansing ACS21 Speakers \$15.99	17" SYLVANIA F76 90 day warranty \$129	30GB 7200 \$109	Creative Sound PCI 128 \$22.99 PCI-512 \$29.99 LIVE VALUE \$39.99
3COM Fax/Lan pcmcia \$99.00	32mb Ati RADEON DDR \$69			

IDP 573

MMX 233

32MB SDRAM

3GB HDD

24X CDROM

1.44 DRIVE

12.1" TFT SCREEN

90DAY WARRANTY

\$599.00

OFF LEASE



COMPAQ 7800

PENTIUM II 300MHZ

128MB SDRAM, 100 ZIP

8.0 GB HDD

24X CDROM

56K MODEM

14.1" TFT SCREEN

90DAY WARRANTY

\$899.00

OFF LEASE, LIKE NEW!



NEW

\$259.00

19" MAG XJ 810

COMPAQ / DELL / IBM

PII 350

ATX MID TOWER CASE

64 MB SDRAM PC 66

6.4GB HARD DRIVE

CDROM DRIVE

1.44 MB FLOPPY

VIDEO CARD

SOUND & SPEAKERS

PS/2 104 KEYS

KB PS/2 MOUSE

USED SYSTEMS

INTEGRATED MOTHERBOARD

VARIOUS CONFIGURATIONS

PRICES STARTING FROM:

\$199.00

90 DAY WARRANTY

P II 400 **\$239.00**

P II 450 **\$259.00**

INTEL CELERON 500 MHZ

INTEL BP810 MOTHER BOARD

ATX MICRO TOWER

128 MB SDRAM MEMORY

30GB UDMA HARD DRIVE

1.44MB FLOPPY DISK DRIVE

AGP VIDEO

40X CDROM DRIVE

32BIT SOUND

56K V.90 FAX MODEM

120 WATT SPEAKERS

PS/2 104KEYS KEYBOARD

PS/2 MOUSE, 1YR PARTS WARRANTY

INTEGRATED VIDEO SOUND MODEM

\$299.00

1 YEAR LIMITED WARRANTY

DURON Systems

AMD DURON 950

MSI K7T TURBO 2 MOTHERBOARD

ATX MID TOWER

128MB SDRAM

30GB HARD DRIVE

1.44MB FLOPPY

32MB ATI VIDEO

52X CDROM

SOUND CARD OB

SPEAKERS 3 PIECE

56K V90 FAX MODEM

PS/2 104KEYS KB PS/2 MOUSE

INTEGRATED SOUND

Upgrade

DUR- 900 **\$589.00**

DUR- 950 **\$595.00**

\$529.00

ONE YEAR LIMITED WARRANTY

Upgrade or Add :

64 TO 128MB PC-133 (UPGRADE)	\$34
128 TO 256MB PC-133 (UPGRADE)	\$54
128 TO 256MB DDR (UPGRADE)	\$69
128 TO 256MB RAMBUS (UPGRADE)	\$65
CDROM TO 16X DVD-ROM (UPGRADE)	\$40
24X10X40 CDRW (ADD)	\$139
SB LIVE VALUE (UPGRADE)	\$50
17" KDS MONITOR (ADD)	\$210
19" CTX VS-1901 MONITOR (ADD)	\$329
19" VIEWSONIC PF790 MONITOR (ADD)	\$560
AVS 500W 5PCS. SPEAKERS (UPGRADE)	\$60
WINDOWS MILLENNIUM (ADD)	\$109
WINDOWS 2000 PRO (ADD)	\$219
WINDOWS XP-HOME (ADD)	\$150
WINDOWS XP-PRO (ADD)	\$229
COREL OFFICE 2000 (ADD)	\$19

Green Line Systems

AMD ATHLON K7-950

ECS K7S5A MOTHER BOARD

ATX MID TOWER

128MB SDRAM *

30GB HARD DRIVE

1.44MB FLOPPY

32MB ATI VIDEO

52X CDROM

SOUND CARD OB

SPEAKERS 3 PIECE

56K V90 FAX MODEM

PS/2 104KEYS KB PS/2 MOUSE

*FOR 128DDR ADD \$15.00

Upgrade

K7- 1.0 **\$615.00**

K7- 1.4 **\$700.00**

\$529.00

ONE YEAR LIMITED WARRANTY

Gold Line Business

PENTIUM 1.6 CPU

ECS P4S5A MOTHERBOARD 478

ATX P4 MID TOWER 300W PS

128MB SDRAM MEMORY

20GB 7200RPM HARD DRIVE

1.44MB FLOPPY DISK DRIVE

32MB ATI RADEON VIDEO

52X LG CDROM DRIVE

ON BOARD SOUND CARD

56K V.90 PCI FAX MODEM

3PCS. SPEAKERS W/SUB

PS/2 104KEYS KEYBOARD

PS/2 MOUSE

ON BOARD 10/100

Upgrade

P4- 1.7 **\$727.00**

P4- 1.8 **\$769.00**

P4- 2.0 **\$919.00**

\$699.00

DELL

PIII 500

ATX MID TOWER CASE

128MB SDRAM

10.0 GB HARD DRIVE

CDROM DRIVE

1.44 MB FLOPPY

VIDEO CARD,NIC

SOUND & SPEAKERS

PS/2 104 KEYS

KB PS/2 MOUSE

USED SYSTEMS

INTEGRATED MOTHERBOARD

VARIOUS CONFIGURATIONS

\$469.00

90 DAY WARRANTY

XP Systems

AMD XP 1600

MSI K7T TURBO 2 MOTHERBOARD

ATX MID TOWER

128MB SDRAM

30GB HARD DRIVE

1.44MB FLOPPY

32MB ATI VIDEO

52X CDROM

SOUND CARD OB

SPEAKERS 3 PIECE

56K V90 FAX MODEM

PS/2 104KEYS KB PS/2 MOUSE

INTEGRATED SOUND

Upgrade

XP- 1800 **\$661.00**

XP- 1900 **\$649.00**

XP- 2000 **\$799.00**

\$629.00

ONE YEAR LIMITED WARRANTY

Red Line Gaming

PENTIUM 1.6 CPU

ASUS P4T-E 478

ATX P4 MID TOWER 300W PS

256MB PC-800 RDRAM MEMORY

30GB 7200RPM HARD DRIVE

1.44MB FLOPPY DISK DRIVE

32MB ATI DDR RADEON

16X DVD-CDROM DRIVE

SOUND BLASTER LIVE

56K V.90 PCI FAX MODEM

ALTEC LANSING 5 PIECE SPEAKERS

PS/2 MULTIMEDIA KEYBOARD

PS/2 LOGITECH WHEEL MOUSE

NON-INTEGRATED VIDEO AND SOUND

Upgrade

P4- 1.7 **\$1130.00**

P4- 1.8 **\$1175.00**

P4- 2.0 **\$1300.00**

\$1085.00

WHOLESALE WELCOMED

Visit our showroom for in store Specials!

BNC

BNC Systems Inc.

SYSTEMS

www.bnccom.com

Tel. (905)678-1242

Fax. (905)678-1252

Mon-Fri

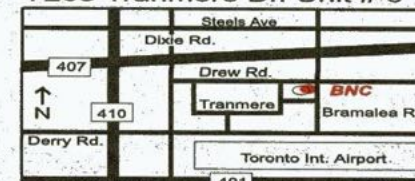
9:30am-6:30pm

Saturday

11:00am-5:00pm

*Products names mentioned herein maybe trade names and for registered trademarks of their respective companies.

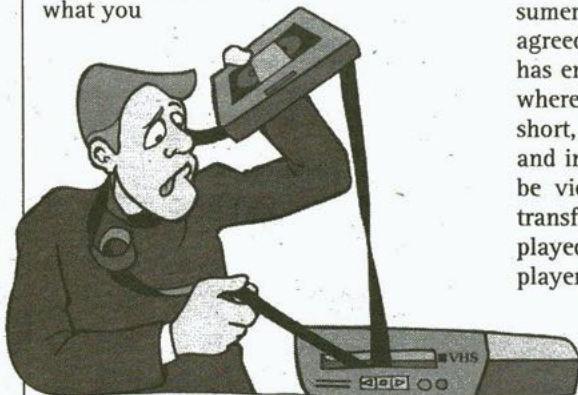
Mississauga
7205 Tranmere Dr. Unit # 6



Adventures in digital video: Home movies don't have to elicit horror

By NESTOR GULA

In the past, when you would suggest to guests that you would like them to see a home movie or video, the reaction was usually one of horror. In some cases, the guests might even be offended. Of course, being Canadian, we would usually meekly trudge down to the rumpus room and endure the unendurable — hours upon hours of badly shot, badly lit, unedited footage, with the host explaining



should be seeing.

Editing suites for analogue video or film were costly and required extensive, and expensive, training to operate. Some analogue camcorders let you do basic editing and titling. This was not only cumbersome and difficult, the results were feeble — they reflected badly on the amount of work you had done. Most home movies and home videos have never been edited and thus are rarely watched.

In speaking with Ralph Bond, the consumer education manager for Intel, we agreed that the era of bad home movies has ended. We are now living in an era where home videos can be relatively short, well paced and (gasp) exciting and interesting. They no longer have to be viewed on a computer monitor or transferred to a VHS tape. They can be played on your home theatre's DVD player, the home movies' digital fidelity preserved by authoring a DVD or VCD (Video Compact Disc).

The biggest problem for the

acceptance of DVD authoring is the cost. Bond said that the cost of both the DVD-R drives and media have fallen quite dramatically. Currently the price of a DVD-R hovers around \$700 at the bottom end of the scale. Blank media costs about \$20 per disc, although Apple has a deal that packages five discs for \$40. (Note: These have been massaged and cannot be duplicated.) Bond is bullish on DVD authoring but admits that the cost will discourage mass acceptance just yet.

Most people now, and for the next year or two, will only have the VCD option open to them. Bond has had mixed results with VCDs. "I've had some VCDs that look terrific and others that looked terrible," he said. "I used the same equipment, same soft-

ware, same everything and I can't figure out why some look great and others horrible."

As for all the VHS tapes languishing in the basements and on the bookshelves of the world, Bond said people should convert them all to digital format, offering suggestions for various ways to do this. There are services that offer to take your VHS tapes and transfer them onto a DVD. "The service is



TURBOCOM COMPUTERS

(STORE HOURS: MON-FRI 10-7PM, SAT 10-5PM)

mississauga@turbocom.ca northyork@turbocom.ca scarborough@turbocom.ca
MISSISSAUGA NORTH YORK SCARBOROUGH

30 Eglinton Ave West, #19 6981 Yonge Street 1286 Kennedy Road, #2
(SW Corner of Eglinton Ave. West & Hurontario) (SE Corner of Yonge & Steeles) (Between Ellesmere & Lawrence)
Tel: (905) 277-3999 Tel: (416) 223-9608 Tel: (416) 701-9876
Fax: (905) 277-5999 Fax: (416) 223-9260 Fax: (416) 701-9862

intel AMD Maxtor ASUS Adaptec ATI NVIDIA Microsoft Windows

AMD XP-1800+ SYSTEM

\$1128.00

AMD® XP processor 1800+ MHz
ECS K785A Socket-A Motherboard
256MB PC-133 Memory (DDR Upgradeable)
40GB 7200RPM ATA/100 IDE Hard Drive
1.44MB Floppy Drive
32x10x40 IDE CD-RW Drive
ATI RADEON 64MB AGP Video Card
Network Ready 10/100 Connection
Keytronics 104 PS/2 Keyboard
Logitech® Scroll Mouse
Deluxe Mid Tower with 300W P/S
AC97 18-Bit Sound Card
1050W PMPO Flat Speakers / Wooden Subwoofer
Microsoft® Windows XP Home Edition

INTEL P4-1600 SYSTEM

\$1148.00

Intel® Pentium® 4 Processor 1.6 GHz
Northwood Socket-478 ATX M/B
256MB PC-133 Memory
40GB 7200RPM ATA/100 IDE Hard Drive
1.44MB Floppy Drive
32x10x40 IDE CD-RW Drive
ATI RADEON 64MB AGP Video Card
Network Ready 10/100 Connection
Keytronics 104 PS/2 Keyboard
Logitech® Scroll Mouse
Deluxe Mid Tower with 300W P/S
AC97 18-Bit Sound Card
1050W PMPO Flat Speakers / Wooden Subwoofer
Microsoft® Windows XP Home Edition

21797114

SYSTEM CUSTOMIZATION / UPGRADES / NETWORK SOLUTIONS

32/10/40 CD-RW
Eliminates
Buffer Underrun

\$149.00

60GB HDD
» Ultra ATA-133
» 7200 RPM

\$189.00

GeForce 4 -MX
64 MB DDR / 4X AGP

\$199

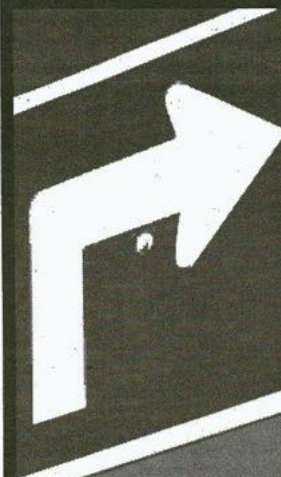
Firewire Cards
IEEE-1394
Desktop 2-Port PCI Card
Laptop 2-Port PCMCIA Card

\$39 \$79

ALL PRICES 4% CASH DISCOUNTED. TAXES ARE EXTRA. PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

042202

NEXT WEBHOSTING



ELOSOFT online

NEXTWEBHOSTING.COM IS A
SUBDIVISION OF ELOSOFT

STARTING FROM
\$6.95
PER MONTH

**FREE
3 MONTHS
HOSTING**

ONE YEAR EQUALS 15 MONTHS
WEBMASTERS, DESIGNERS
CHECK OUR AMAZING
RESELLER PROGRAM
PROFESSIONAL WEB HOSTING

TOLL FREE
1.877.356.7638
LOCAL
905.760.8440

Professionally Hosted Websites
Domain Registration
Unlimited Email Accounts
Unlimited Hits, Transfers
World Class Support Desk
Same Day Set-up
Fiber Optic OC-3 Connections
24x7 Toll Free Tech Support
Microsoft FrontPage 2002
Active Server Pages
Vbasic, Java, Perl 5
Unique IP Address
CGI Support
OBDC Support
SQL7 & SQL2000
Real Audio / Video
Shockwave, Flash, Quicktime
Web Statistics by Webtrends
Counter
Guest Book
WEB Board
Form-return
Money Back Guarantee

WWW.NEXTWEBHOSTING.COM

ONE YEAR EQUALS 15 MONTHS

21806714

good," said Bond, but "Do you want to send the only copy of your wedding tape in the mail?"

There are also devices that will allow you to do the conversion. Dazzle is a stand-alone box and retails for about \$500. Pinnacle's DV500plus (See review in *Toronto Computes!* March 2002 issue.) will also do this, as will Pinnacle's *Studio Deluxe* (a much more affordable solution) and other hardware/software packages. "For me, the best way is the digital video camera," said Bond. "I don't think most consumers appreciate the implication of this product. It is not just a digital replace-



ment for your analogue camcorder. It is the best analogue-to-digital shuttle there is."

Editing is getting easier, as well. "One thing I have to say is that the Apple

guys did it right, and did it right from the beginning," said Bond. "They had a software environment that let you record to the hard disk, edit and burn to the CD/DVD in one holistic software environment." He said that until the end of 2001, to achieve this on a Windows PC you had to flip between various applications. "Now there are single programs that are extremely simple," he said. "The trade-off is you trade away editing power." These programs don't have the editing power of

Adobe Premiere or Apple's *Final Cut* but are fine for simple editing and making your home videos look presentable to everybody.

There are really no more excuses to have bad home movies and no more reasons for having people dread the invitation to watch home video. If you have a half decent computer (about 700 MHz or higher) you don't really

need to spend all that much to create something that will withstand scathing criticism; something you can watch proudly years hence. ♦

OZ TOP GAMING GADGETS

Gravis Destroyer PC Game Pad \$15



FLIGHT SIMULATOR CONTROLLERS

- Thrust Master Pro Pedals USB.....\$199
- Thrust Master Flight Stick Yoke USB.....\$199
- Saitek X45 Joystick & Flight Throttle.....\$149
- Microsoft Sidewinder Force Feedback V2....\$149
- Logitech Wingman 3D Force Feedback.....\$119



RACING STEERING WHEELS

- Saitek R100 USB.....\$69
- Logitech Formula GP\$69
- Logitech Formula Force Feedback GP\$139
- Logitech Formula Force Feedback MOMO....\$259
- Microsoft SideWinder Force Feedback.....\$169



ADVANCED GAME PADS

- Logitech RumplePad Vibrating Feedback.....\$49
- Logitech RumplePad Cordless/Vibrating.....\$79
- Microsoft Sidewinder Freestyle Pro Pad.....\$49
- Belkin Nostromo SpeedPad N50 Pad w/Kbd....\$59



www.oztech.ca
(T) 905 270 2900
(F) 905 270 8743
EMAIL: SALES@OZTECH.CA
1870 DUNDAS ST EAST
MISSISSAUGA, ON L4X 1L9

Store Hours: 9AM-7PM Mon-Fri, 10AM-6PM Sat
The Fine Print: All Trademarks and Logos are property of their respective manufacturers. Pricing is discounted for cash or debit payment. OZ Tech reserves the right to change prices and specifications at any time.

BATHURST HWY 407
STEELES AVE. W.
FINCH AVE. W.
YONGE ST.

180 STEELES AVE. W. UNIT 30, THORNHILL
TEL 905-762-9811, FAX 905-762-9812
MON-FRI: 11:30-7:30, SAT-SUN 11:00-6:00

MICROPOINT COMPUTERS

ALL PRICES ARE ALREADY 4% CASH DISCOUNTED AND SUBJECT TO CHANGE WITHOUT NOTICE

WOODBINE 14TH AVE.
DENISON ST.
STEELES AVE. E.
WARDEN

920 DENISON ST. UNIT 1, MARKHAM
TEL 905-470-6111, FAX 905-470-6112
MON-SAT: 11:00-6:00, SUN: CLOSED

\$389 VIA 1.0 GIGA PRO CPU VIA VT133 MAINBOARD 128 MB SDRAM PC-133 20 GB HDD ATA100 VIA VIDEO ONBOARD 6 CHANNEL SOUND/SPKS. 40X CD-ROM / 1.44 FDD 56K V90 FAX MODEM 10/100 LAN ONBOARD WIN98 KB / MOUSE ATX TOWER CASE	\$489 CELERON 1000 SHUTTLE AV18ET M/B 128 MB SDRAM PC-133 20 GB HDD ATA100 SIS 32MB VIDEO CARD 3D SOUND ONBOARD 40X CD-ROM / 1.44 FDD 56K V90 FAX MODEM 180W SPEAKER WIN98 KB / MOUSE ATX MID TOWER CASE	\$679 PENTIUM-4 1.6 GHZ MSI 6547 (645 ULTRA) M/B 128MB DDR266 RAM 40 GB HDD ATA100 ATI RAGE 128 32MB SOUND ONBOARD 50X CD-ROM / 1.44 FDD 56K V90 FAX MODEM 180W SPEAKERS WIN98 KB / MOUSE ATX 300W P4 CASE	\$749 PENTIUM-4 1.6 GHZ ECS P455A (SD&DDR) M/B 256MB SDRAM PC-133 40 GB HDD ATA100 GEFORCE 2 MX 64MB 4X SOUND & LAN ONBOARD 50X CD-ROM / 1.44 FDD 56K V90 FAX MODEM 180W SPEAKERS WIN98 KB / MOUSE ATX 300W P4 CASE	\$859 PENTIUM-4 1.7 GHZ ASUS P4S333M M/B 256MB DDR266 RAM 40 GB HDD ATA100 GeFORCE 2-MX 64M 4X SOUND & LAN ONBOARD 16X10X40 CD-RW/1.44 FDD 56K V90 FAX MODEM 180W SPEAKER WIN98 KB & Wheel Mouse ATX 300W P4 CASE	\$929 PENTIUM-4 1.7 GHZ ASUS P4B266-C M/B 256 MB DDR266 RAM 40 GB HDD ATA100 GeFORCE 2-MX 64M 4X 32BIT SOUND CARD 16X10X40 CD-RW/1.44 FDD 56K V90 FAX MODEM 600W SUBWOOFER SPK. WIN98 KB&Wheel Mouse ATX 300W P4 CASE	\$1079 PENTIUM-4 1.8 GHZ ASUS PAT-E MAINBOARD 128MB RDARM PC-800 40 GB HDD ATA100 GeFORCE 2-MX 64M 4X SOUND BLASTER LIVE 5.1 24X10X40 CD-RW/1.44 FDD 56K V90 FAX MODEM 600W SUBWOOFER SPK. Internet KB & Wheel Mouse ATX 300W P4 CASE
\$449 AMD DURON 1000 ECS K7V2M M/B 128 MB SDRAM PC-133 20 GB HDD ATA100 SIS 32MB VIDEO CARD SOUND & LAN ONBOARD 40X CD-ROM / 1.44 FDD 56K V90 FAX MODEM 180W SPEAKER WIN98 KB / MOUSE ATX MID TOWER CASE	\$569 AMD T-BIRD 1.4GHZ ECS K7S5A (SD&DDR) M/B 128 MB SDRAM PC-133 20 GB HDD ATA100 SIS 32MB VIDEO CARD SOUND & LAN ONBOARD 50X CD-ROM / 1.44 FDD 56K V90 FAX MODEM 180W SPEAKER WIN98 KB / MOUSE ATX MID TOWER CASE	\$609 AMD ATHLON XP 1700+ ECS K7S5A (SD&DDR) M/B 128 MB SDRAM PC-133 40 GB HDD ATA100 ATI RAGE 128 32MB SOUND & LAN ONBOARD 50X CD-ROM / 1.44 FDD 56K V90 FAX MODEM 180W SPEAKER WIN98 KB / MOUSE ATX MID TOWER CASE	Monthly Special AOC 17" MONITOR \$185 AOC 19" MONITOR \$275 SAMSUNG 17" 753DF \$235 SAMSUNG 19" 955DF \$375 16X DVD \$75 WHEEL MOUSE \$9 BLANK CD (50 PACK) \$20 CERATIVE SB LIVE 5.1 \$49 Geforce 4 Mx440 64M tv \$169	\$659 AMD ATHLON XP 1700+ ECS K7S5A (SD&DDR) M/B 256 MB DDR266 RAM 40 GB HDD ATA100 ATI RAGE 128 32MB SOUND & LAN ONBOARD 50X CD-ROM / 1.44 FDD 56K V90 FAX MODEM 180W SPEAKER WIN98 KB / MOUSE ATX MID TOWER CASE	\$799 AMD ATHLON XP 1700+ ASUS A7A133 M/B 256 MB SDRAM PC-133 40 GB HDD ATA100 GEFORCE 2 MX 64 MB 4X S.B. LIVE 5.1 16X10X40 CD-RW / 1.44 FDD 56K V90 FAX MODEM 180W SPEAKER WIN98 KB / MOUSE ATX MID TOWER CASE	\$969 AMD ATHLON XP 1800+ ASUS A7A266 M/B 256 MB DDR RAM PC-2100 40 GB HDD ATA100 GEFORCE 2 MX 64 MB 4X S.B. LIVE 5.1 / 16X DVD 24X10X40 CD-RW / 1.44 FDD 56K V90 FAX MODEM 600W SUBWOOFER SPEAKER Internet KB / Wheel Mouse ATX MID TOWER CASE
MONITOR SAMSUNG 17" 750S \$205 17" 753DF \$235 17" 700NF \$339 19" 950B \$319 19" 955DF \$375 19" 900FP \$535 19" 900NF \$539 21" 1100P+ \$759 15" LCD 151S \$549 17" LCD 171S \$995 VIEWSONIC 17" E70 \$249 17" E70F \$275 19" G90F \$459 19" PF790 \$555 15" LCD VE150 \$579	NEC 17" AS70 \$215 17" AS75F \$245 17" FE700+ \$295 19" AS90 \$335 19" AS95F \$379 19" FE950+ \$485 15" LCD 1530V / BK \$529 15" LCD 1550V / BK \$539 SONY 19" G410R \$695 19" G420S \$735 AOC 17" 7ELR \$185 19" 9GLR \$275 19" 9KLR FLAT \$345 DAYTEK 17" 719BF FLAT \$235 19" N9F \$295	DVD/CD-RW 16X DVD \$75 PIONEER 16X DVD \$89 16X10X40 CD-RW \$95 ARTEC 24X10X40 CD-RW \$115 LG 24X10X40 CD-RW \$119 LG 32X10X40 CD-RW \$135 SONY 24X10X40 CD-RW \$129 YAMAHA 20X10X40 CD-RW \$189 MSI 32X12X40 CD-RW \$139 LITEON 40X12X40 CD-RW \$209 PLEXTOR 24X10X40 CD-RW \$209 PLEXTOR 40X12X40 CD-RW \$249 SOUND CARD 32BIT SOUND CARD \$15 SB LIVE VALUE 5.1 \$49 SB AUDIGY W/1394VA \$99	VIDEO CARD ATI RAGE 128 32MB \$45 GEFORCE 2 MX-200 64MB \$79 GEFORCE 2 MX-200 64M tvout \$89 60GB/80GB 5400RPM \$149 / 189 GEFORCE 2 MX-400 64M tvout \$99 GEFORCE 4 MX-440 64M tvout \$169 ATI RADEON 7500 64M TV \$119/139 ATI RADEON 8500 64M TV \$269 ATI ALL-IN-W RADEON 32M \$249 ATI ALL-IN-W RADEON 32M \$249 ATI All-in-w Radeon 8500 64M \$525 ASUS V7700-TI 32M PURE \$129 ASUS V7700-TIVX 64M P/D \$189/229 ASUS V8200-T2 64M P/D \$209/259 ASUS V8200-T500 64M P/D \$499/559 MSI TI 64M DDR tvout/VIVO \$175/195 MSI TI-200 64M DDR TVOUT \$275	HARD DRIVE MAXTOR 20GB 5400RPM \$99 40GB 5400RPM \$119 60GB/80GB 5400RPM \$149 / 189 100GB 5400RPM \$329 20GB/40GB 7200RPM \$119 / \$139 60GB/80GB 7200RPM \$175 / \$219 PRINTER EPSON C40UX (1440X720) \$75 EPSON C60 (2880X720) \$145 EPSON C80 (2880X720) \$259 CANON S200 (2880X720) \$89 CANON S300 (2400X1200) \$145 CANON S520 (2400X1200) \$195 OKIDATA OL 410E LASER \$199 SAMSUNG ML-1210 LASER \$299	MODEM MOTOROLA 56K V90 \$17 AOPEN 56K V90 SM \$27 AOPEN 56K V90 PM \$43 AOPEN 56K V90 External USB \$75 USR 56K V90 WIN \$45 USR 56K V90 Win/Voice \$49 USR 56K V90 Hardware \$75 USR 56K V90 Hardware voice \$89 USR V90 EXTERNAL \$195 USR V90 EXTERNAL Voice \$205 SPEAKER Altec Lansing AVS 300 \$55 Altec Lansing AVS 500 \$69 CREATIVE Inspire 2.1 2400 \$59 CREATIVE Inspire 4.1 4400 \$89 CREATIVE Inspire 5.1 5300 \$139	NETWORK SOHO 10/100 BASE NIC \$15 D-LINK 10/100 BASE NIC \$19 8 PORT 10 BASE HUB \$39 LINKSYS 10/100 4 port router \$139 D-Link 10/100 4 Port Router \$139 D-Link 10/100 7 Port Router \$239 NETWORK CABLE \$0.50 / FOOT ACCESSORIES ATX TOWER CASE 250W \$35 FLOPPY DRIVE \$20 USB CABLE \$10 PSII MOUSE \$6 PSII KEYBOARD \$10 LOGITECH WHEEL MOUSE \$19 LOGITECH INTERNET KB \$35 Microsoft Natural / Internet KB \$39

OS TECH HIGH-TECH PC RESOURCE

PRO'S POWER

Mid Tower Premium P4 ATX 300W
Asus I845 Main Board w/ATA100
256MB DDR PC2100 RAM
60.2Gb IBM Deskstar 7200R U100 Hdd
1.44Mb Panasonic 3.5" Floppy Drive
64Mb ATI Radeon VE 3D Video Card
NEC 1550 Flat Panel LCD TFT 15"
Microsoft Internet Keyboard
Microsoft Intelli Eye Optical Mouse
56K USB Robotics PCI Fax Modem
10/100 Network Card
24x/10x/40x Panasonic CDRW
32Bit DSS Sound Card
Altec Lansing AVS300 Speakers w/Sub.
Microsoft Windows XP Professional



INCLUDES LCD Flat Panel

PER MONTH

Intel Pentium 4 1.7Ghz (400FSB)	\$2,249	\$80
Intel Pentium 4 1.8Ghz (400FSB)	\$2,299	\$82
Intel Pentium 4 2.0Ghz (400FSB)	\$2,549	\$103

WARRANTY - 2YRS PARTS / 5YRS LABOR

PERFORMANCE PRO

Mid Tower Premium AMD 300W
Asus A7V-333 Main Board
UDMA133 & USB 2.0
256MB DDR PC2700 RAM
60.2Gb Maxtor 7200R Hdd
64Mb Radeon 7000 SDR 3D Video
24x/10x/40x CDRW w/Soft
16xDVD-ROM EIDE
1.44Mb Panasonic Floppy Drive
104 Enhanced Keyboard
3 Button Mouse
32Bit PCI Sound Card
Altec Lansing AVS200 Speakers
Microsoft Windows XP Home



DDR RAM & CDRW!

PER MONTH

AMD Athlon XP 1700+ (266FSB)	\$1,499	\$51
AMD Athlon XP 1800+ (266FSB)	\$1,529	\$52
AMD Athlon XP 2000+ (266FSB)	\$1,649	\$57

WARRANTY - 2YRS PARTS / 5YRS LABOR

NET SURFER

Mid Tower Case ATX 300W
Asus TUSI-M Main Board
128 MB 133MHz SDRAM
20.2Gb UDMA Hard Drive
16Mb SIS 3D AGP Video Card
52x CD-ROM Drive
1.44Mb Panasonic Floppy Drive
104 Internet Keyboard
3 Button Mouse
56k Motorola Fax/Modem w/Voice
32bit On-Board Sound Card
10/100 On-Board Network Card
Labtec Stereo Speakers
Microsoft Windows XP Home



Super Starter!

Intel Celeron 1.0 Ghz (100FSB)	\$749
Intel Celeron 1.2 Ghz (100FSB)	\$799
Intel Celeron 1.4 Ghz (100FSB)	\$849

WARRANTY - 2YRS PARTS / 5YRS LABOR

AOpen #1 Computing Solution Provider

- Motherboards
- Fax/Modem
- VGA Cards
- Housing & Bare Systems
- Monitors
- CD-ROM/DVD/CD-RW
- Mice & Keyboards
- Networking NIC & Hub
- Speakers & Sound Cards

AOpen Monthly Specials:

AX48S I845 P4/S478 w/Audio Main Board.....	\$169
AK77-Pro Athlon 266FSB DDR Audio MB.....	\$159
AL507 15" LCD TFT Monitor 30mm.....	\$559
GF4-MX440 GeForce 4 440MX 64Mb DDR.....	\$169
GF3Ti-200 GeForce 3 Ti200 128Mb DDR.....	\$289
GF2MX400 GeForce 2 MX400 64Mb TV-Out.....	\$129
HX04/300 ATX Mid Tower 300W.....	\$99
HX08/300 ATX Full Tower 300W.....	\$159

YES! WE SELL LCD & PLASMA DISPLAYS!

We carry full range of LCD & Gas Plasma Displays
See Pricing Details in Monitor Section

Toshiba Laptops

MAKE	CPU	DISPLAY	RAM	MODEM	HDD/CD ROM	PRICE
Portage 2000CT	P3/750MHz	12" TFT	256Mb	56K	20Gb/DVD	\$3349
Satellite 1800VF1	C1.1Ghz	14" TFT	256Mb	56K/Lan	20Gb/DVD	\$1849
Satellite 1800HV9	P3/1.1Ghz	14" TFT	256Mb	56K/Lan	20Gb/DVD/CDRW	\$2349
Satellite 1900JFS	P4/1.6Ghz	15" TFT	256Mb	56K/Lan	30Gb/DVD/CDRW	\$2649
Satellite 6000PRO	P3/1Ghz	14" TFT	256Mb	56K/Lan	20Gb/DVD	\$2699
Satellite 6000PRO	P3/1.1Ghz	15" TFT	256Mb	56K/Lan	30Gb/DVD	\$3199
Satellite 6100PRO	P4/1.6Ghz	14" TFT	256Mb	56K/Lan	30Gb/DVD/CDRW	\$3399

Hard Drives

Plextor CRW 24x/10x/40x EIDE Box.....\$239
Plextor CRW 24x/10x/40x EIDE Box.....\$239
Lite-On CRW 32x/12x/40x EIDE Box.....\$149
Panasonic 24x/10x/40x CDRW w/Soft.....\$149
Pioneer DVD-R A03 12x DVD-RW Box.....\$749
Yamaha CRW3200 24x/10x/40x EXT.....\$469
Yamaha CRW3200E 24x/10x/40x Box.....\$259

CD-ROM Drives

IBM DeskStar GXP 7200R 60/80/120GB.....\$199/\$249/\$349
Master External USB 2.0 120GB.....\$499
Master 7200R 40.2/160/80GB.....\$149/\$199/\$229
Master 5400R 40.2/60/80GB.....\$139/\$169/\$199
Master 5400R 120/160GB.....\$319/\$439
Plextor CRW 24x/10x/40x 10.2/20/20GB.....\$349/\$399

SCSI LVD Ultra

IBM X-Series 10K 18.4/36.4GB.....\$459/\$699
Master Atlas 7.2K 9.2/18.4/36.4GB.....\$249/\$319/\$329
Master Atlas 10K 9.2/18.4/36.4GB.....\$279/\$349/\$359
Seagate Barracuda 7.2K 9.2/18.4/36.4GB.....\$249/\$319/\$329
Seagate Cheetah 10K RPM 18/36.4GB.....\$359/\$459
Seagate Cheetah 15000RPM 18/36.4GB.....\$479/\$789

MaxAttach - Network Storage

400Gb / 384Mb 10/100 Enet NAS.....\$5699
640Gb / 384Mb 10/100 Enet NAS.....\$7999

Sound Cards

SoundBlaster Live! Audigy oem 5.1.....\$119
SoundBlaster Live! Extigy External.....\$249
SoundBlaster Live! Platinum Audigy.....\$319
SoundBlaster Live! I Platinum Audigy EX.....\$379
SoundBlaster Live! Value 5.1 oem.....\$69
Hercules Game Theater XP Box.....\$219
Turtle Beach Santa Cruz PCI Box.....\$149

3D Video & Capture

Asus GeForce 4 Ti4400/256Mb DDR.....\$499
Asus GeForce 4 Ti4600/256Mb DDR.....\$649
3D Labs Oxygen GVX1 32Mb Glint R3.....\$689
3D Labs Oxygen VY1 32Mb Glint R3.....\$689
Asus V7100TV GF2MX-400 64Mb.....\$129
Asus GF3 V8200/1200 64Mb DDR Pure.....\$199
Asus GF3 V8200/1200 64Mb DDR Pure.....\$199
Dazzle Multimedia Hollywood Producer.....\$439
ATI All-in-Wonder Radeon 8500 64Mb.....\$499
ATI All-in-Wonder Radeon 7500 64Mb.....\$299
ATI Radeon 8500 DDR 128Mb.....\$399
Powercolor Radeon 7200 64Mb Box.....\$89
Powercolor Radeon 7500 64Mb DDR.....\$179
ATI TV Wonder Tuner VE PCI/USB.....\$79/\$149
Hauppauge TV & FM Tuner w/Remote PCI.....\$169
Matrox G550 32Mb AGP Dual Head.....\$159
Matrox RT2500 Video Editing Suite.....\$1349
Pinnacle Video Studio AV7 Analog.....\$199
Pinnacle DV Express Firewire + Soft.....\$149
RealMagic Hollywood-MPEG Decoder.....\$75

Professional Software

Red Hat Linux 7.2 Professional Server.....\$299
Adobe PhotoShop V7.0.....\$999
Adobe Illustrator V7.0.....\$669
Business Vision 32.....\$3999

KLIPSCH
Pro Media THX PC Audio System
The ULTIMATE PC Speakers!
\$299

PLEXTOR CDRW
40x/12x/40x
Burn-Proof Technology
Internal Retail Box
\$259

IBM ThinkPad R31
13.3" TFT 1.06Ghz/128Mb RAM/30Gb HD
24x/10x/40x Lan - 56K Modem - USB
32Bit Sound - MS Windows XP
\$1599

Lexmark E210
Optra E 210 Laser Printer
12 Pages/Min 1200DPI
\$289

HANDSPRING
Visor Prism Color PDA
65,000 Colors | Expandability
\$449

Lexmark E210
Optra E 210 Laser Printer
12 Pages/Min 1200DPI
\$289

GeForce 4 - Ti4600
Screaming 128Mb DDR - GF4/GPU
ASUS V8460 Ultra Box
\$649

Western Digital
120Gb ATA133 Hard Drive
7200RPM 8Mb Cache - 9ms
WD1200JB - Drive Only!
\$379

Altec Lansing
2.1 oem ACS33/ACS48.....\$69/\$159
Altec Lansing ADA 621 / ADA 651.....\$239/\$359
Altec Lansing ADA 621 / ADA 651.....\$239/\$359
Altec Lansing 2100 / 4100 / 5100.....\$149/\$199/\$249
Altec Lansing AVS 200 / 300 / 500.....\$59/\$99/\$179
Creative Inspire 2400 / 5300 / 5700.....\$79/\$149/\$199
Harman Kardon Champagne 2spk+sub.....\$129
Harman Kardon SoundStick 2spk+sub.....\$279
Polk Audio 2.1 Surr. AMR50 / AMR70.....\$79/\$99
Polk Audio 4.1 Surr. AMR90 / AMR150.....\$119/\$199
Polk Audio 5.1 Surr. Digital AMR130.....\$219
Yamaha YST-M50 2.1 Surround 80Watts.....\$159
Yamaha YST-TSS1 5.1 Dolby Digital.....\$299
Yamaha Pro Media THX 2.1 Black.....\$299
Yamaha Pro Media THX 4.1 Black.....\$499
Yamaha Pro Media THX 5.1 Black.....\$689

Seagate
6Gb Seagate Tape Store SCSI Internal.....\$299
20Gb Seagate T201 20Gb EIDE Int.....\$469
20Gb Seagate T201 20Gb EIDE Int.....\$469
20Gb Seagate T201 20Gb EIDE Int.....\$469
20Gb Seagate T201 20Gb EIDE Int.....\$469
20Gb Seagate T201 20Gb EIDE Int.....\$469
20Gb Seagate T201 20Gb EIDE Int.....\$469
20Gb Seagate T201 20Gb EIDE Int.....\$469
20Gb Seagate T201 20Gb EIDE Int.....\$469
20Gb Seagate T201 20Gb EIDE Int.....\$469

CD & DVD Drives
24x Backup PC Port /Notebooks.....\$219
52x CD Sony EIDE.....\$49
DVD 2x Panasonic.....\$49
DVD 16x EIDE Pioneer (Black).....\$149
DVD 16x EIDE Pioneer (Black).....\$149
DVD 16x EIDE Pioneer (Black).....\$149
DVD 16x EIDE Pioneer (Black).....\$149
DVD 16x EIDE Pioneer (Black).....\$149
DVD 16x EIDE Pioneer (Black).....\$149
DVD 16x EIDE Pioneer (Black).....\$149
DVD 16x EIDE Pioneer (Black).....\$149

AMD
AMD Athlon XP 1600+/1700+/1800+.....\$189/\$209/\$229
AMD Athlon XP 1600+/1700+/1800+.....\$189/\$209/\$229
AMD Athlon XP 1600+/1700+/1800+.....\$189/\$209/\$229
AMD Athlon XP 1600+/1700+/1800+.....\$189/\$209/\$229
AMD Athlon XP 1600+/1700+/1800+.....\$189/\$209/\$229
AMD Athlon XP 1600+/1700+/1800+.....\$189/\$209/\$229
AMD Athlon XP 1600+/1700+/1800+.....\$189/\$209/\$229
AMD Athlon XP 1600+/1700+/1800+.....\$189/\$209/\$229
AMD Athlon XP 1600+/1700+/1800+.....\$189/\$209/\$229
AMD Athlon XP 1600+/1700+/1800+.....\$189/\$209/\$229

MAKE	CPU	DISPLAY	RAM	MODEM	HDD/CD ROM	PRICE
Compaq IPAQ 3850	206MHz	4" TFT	64Mb	OPT	N/A	\$829
IBM ThinkPad R31	P3/1.13Ghz	14" TFT	128Mb	56K/Lan	30Gb/8xDVD	\$2449
IBM ThinkPad A31	P4/1.6Ghz	15" TFT	256Mb	56K/Lan	40Gb/8xDVD	\$3699
Compaq Presario 710CA	AMD 1.0Ghz	14" TFT	256Mb	56K/Lan	20Gb/8xDVD	\$1849
Compaq Presario 715CA	AMD 1.2Ghz	14" TFT	256Mb	56K/Lan	20Gb/DVD+CDRW	\$2249

ALM M100 \$159 ALM M105 \$229 ALM M500 \$489 ALM M505 \$599
Palm Accessories: Adapters, IR Modules, Carrying Cases, Extra Pens & More!

Network

MAKE	CPU	DISPLAY	RAM	MODEM	HDD/CD ROM	PRICE
Adaptec PCI 2930 SCSI-2 Ultra Card Only.....						\$129
Adaptec PCI 19160 Ultra160 Card Only.....						\$269
Adaptec PCI 19160 Ultra160 SCSI Kit.....						\$399
Adaptec PCI 29160 Ultra160 Card Only.....						\$379
Maxtor IEEE1394 PCI Firewire 2 Ports.....						\$79
Maxtor IEEE1394 Firewire for Laptops.....						\$139
PCI-2-USB 2xUSB Expansion Card.....						\$49
PCI-2-USB 2.0 PCI Dual Port.....						\$79
Lava Serial Port PCI Single / Dual.....						\$49/\$79
Lava Parallel Port PCI Single / Dual.....						\$49/\$79
Promise Fast Trak 2000 ATA133 RAID PCI.....						\$189
Promise ATA-133 PCI Box w/Cable.....						\$99

CASES & POWER

Antec PP403X 300W ATX Power Supply.....	\$79
Antec PP403X 300W ATX Power Supply.....	\$79
Antec PP403X 300W ATX Power Supply.....	\$79
Antec PP403X 300W ATX Power Supply.....	\$79
Antec PP403X 300W ATX Power Supply.....	\$79
Antec PP403X 300W ATX Power Supply.....	\$79
Antec PP403X 300W ATX Power Supply.....	\$79
Antec PP403X 300W ATX Power Supply.....	\$79
Antec PP403X 300W ATX Power Supply.....	\$79
Antec PP403X 300W ATX Power Supply.....	\$79

Network

Netgear 100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139

Network

Netgear 100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139

Network

Netgear 100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139

Network

Netgear 100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139

Network

Netgear 100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139

Network

Netgear 100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139
Netgear 100/100Mbps Copper PCI GA302TNA.....	\$139

OS TECH
email: sales@oztech.ca
web site: http://www.oztech.ca
We Offer 14 Days Full Refund Policy on All Purchases**

1870 Dundas St. East, Mississauga, ONT L4X 1L9
Tel: (905) 270-2900
Fax: (905) 270-8743
Store Hours: Mon-Fri: 9AM-7PM Sat: 10AM-6PM

Soundcards: 16-bit and beyond

By HAROLD LASS

Time was when computers were mute (except for occasional beeps from an internal speaker on the motherboard). With the advent of soundcards (or sound boards) in the '80s, though, the talkies had arrived and suddenly computers weren't only number crunchers. They'd become entertainment centres. Virtually every computer these days ships with a soundcard and a set of speakers to "enhance" the computer experience.

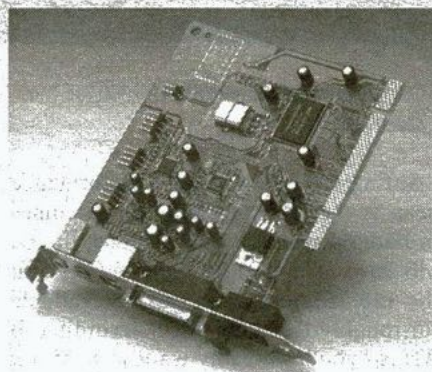
The process of recording sound comes down to 1s and 0s, as usual. Basically, to record, a microphone jacked into the card picks up the sound (your voice, for instance) as an analogue signal.

A chip in the soundcard converts this analogue signal to a digital output (the binary 1s and 0s — the language of computers). The digital output is compressed, sent to your computer's processor and ends up on your hard drive as a .wav file.

To listen to this (or any other) .wav file, the process is reversed. The digital .wav file on your hard drive is sent to the processor, then to the soundcard to be converted to an analogue signal, which is then picked up by your speakers or headset.

So much for recording and playing sound. Now, if all soundcards perform these two basic functions, are some better than others? You bet. Fact is, not all soundcards, well, sound alike.

The importance to you of audio quality and card versatility will determine what kind of soundcard you might be after; do you want gaming audio with 3-D sound (so you know where the next ambush is coming from)? Studio quality recording and playback capabilities including special effects and MIDI support? Full music listening pleasure? Or



do you just want to be able to hear the sound?

If you're only after the ability to hear sound and nothing else, then all you need is a relatively inexpensive 16- or 32-bit soundcard. The terms 16-bit and 32-bit refer to the bus structure of the card. A PCI 32-bit soundcard can process more bits of information at a time than an ISA 16-bit soundcard. PCI bus soundcards are preferable because the ISA bus is becoming obsolete.

The name most often associated with sound cards is SoundBlaster by Creative Labs because it was one of the first. But Creative Labs is not the only manufacturer. AOpen, Philips, Hercules, Zoltrix, Turtle Beach and VideoLogic are some others.

For a brief overview of cards, one place to start is About: Rick Russell's Guide to Sound and Audio.

If you're a hard-core gamer, you'll want something more than a generic soundcard, though. Gamers Depot highlights some of the more popular gamers' soundcards of choice.

For each card named, the site provides a link to the manufacturer, reviewers' impressions of the card, the features, specs, installation, pros and cons and a

final rating. I love their rating system — the "drool" award. Five drops means it's tops.

Of course, you could go for versatile high-end performance and get your hands on the SoundBlaster Audigy Platinum eX (external drive). According to Creative Labs, it features "up to four simultaneous audio environments in real time, a natural audio transition from one environment to another with real-time morphing of each audio envi-

ronment's characteristics, 3D spatialization and localization of an upcoming or distant environment and 3D sound imaging in both multi-speaker systems and headphones, allowing you to find and frag your opponents quickly." Ah yes, it also features a hefty price tag (\$399.00 external model/\$319.00 front panel internal model)

Soundcards are regularly reviewed by us and the reviews can be found at www.canadacomputes.com. ♦

more INFO

About: Rick Russell's Guide to Sound and Audio: peripherals.about.com/cs/soundandaudio/
AOpen: www.aopen.com/products/sound/default.htm
CNet Sound Card Reviews: computers.cnet.com/hardware/0_1106.html?tag=stbc.gp
Creative Labs: www.america.creative.com/
Gamers Depot: www.gamersdepot.com/sound_cards.htm
Hercules: us.hercules.com/products/index.php3
Philips: www.pcsound.philips.com/soundcards.html
PCAVTech Sound Card Benchmark Test Summary: www.pcavtech.com/soundcards/summary/
SysOpt.com: Sound card user reviews: www.sysopt.com/userreviews/products/sound.html
Turtle Beach: www.tbeach.com/site/
VideoLogic: www.videologic.com/Products/ProductIndex.asp
Zoltrix: www.zoltrix.com/

LET'S TALK NOTEBOOKS

NEW NOTEBOOKS

FREE 1 Extra Year Labour Warranty
Toshiba 6000 14.1 PIII1000 DVD W98 \$2534
Acer 222X 14.1 C1060 DVD WinXP \$1624
Acer 630XV 14.1 P4M 1.4G DVD WinXP \$2394
Angel 2600 15.1 P4 1.7G 1400x1050 \$2994
Angel 9200 PIII1000 14.1 DVD 20GB \$2094
Fujitsu P2040A Cru800 10.6" DVD/CDRW \$2494
IBM 1200i PIII750 13.3" DVD 20GB \$1594
R3i C1066 13.3 20GB 128MB \$1694

USED NOTEBOOKS

FREE Norton Systemworks
Compaq M700 PIII366 64MB \$999
Compaq 7400 PIII366 DVD 10GB \$1099
Toshiba 4020 PIII300 13.3 6GB \$799
Dell CPI P11300 13.3 6GB \$899
Toshiba 3010CT P266 MMX 3Lbs \$549
IBM 380ED P166 12.1 2GB \$449
Toshiba 8000 14.1 PII 266 64MB 4GB \$849

PARTS

128MB RAM \$134
256MB RAM \$274
512MB RAM \$399
10GB HDD \$174
20GB HDD \$224
30GB HDD \$349
Batteries \$Call
AC Adapters \$Call

REPAIRS: Spills, Drops, Corrosion, Dead Screens, Backlights, Motherboards, Software... we fix the tough jobs!

NOTEBOOK UNIVERSE

service - sales - parts - rentals
653 Queen Street East Tel: 416.366.6683 or 1.877.826.0665
Mon-Fri 10AM-6PM Sat 12PM-4PM www.notebookuniverse.com

21806514

Cybraian Computer

2788 Bathurst St., North York
Tel: 416-781-0496
Fax: 416-781-2759
Email Address: support@cybraian.ca
Website: www.cybraian.ca
MON-FRI SAT & SUN
10:00AM-7:30PM 10:00AM-5:00PM
Warranty up to 3 years. Delivery Available.



VIDEO CARD

****SPECIAL****
256MB PC-133 SDRAM .75
4D Optical Mouse .19
Altec Lansing ACS21 SPK .21
Logitech Web Cam Express .29
17 AOC 7Eir Monitor .189
20 Dell Trinitron Monitor .229
Off lease, grade A, 3 month warranty

VisionTek GeF2 MX400 TV 64M \$ 99
ATI Rage 128 32M \$ 45
ATI Radeon 7000 SDR TV 64M \$ 75
ATI Radeon 7500 DDR 64M \$ 129
ATI Radeon 8500 DDR 64M \$ 215
ATI All-in-Wonder 8500DV 64M \$ 489
MSI GeF2 Mx400 SDR TV 64M \$ 95
MSI GeF4 Mx420 SDR TV 64M \$ 129
MSI GeF3 Ti200 DDR VIVO128M \$ 235
MSI GeF4 Mx440DDR TV 64M \$ 159
ASUS V7100 MX400/TV 64M \$120/138
ASUS V7700 TiVX/TV 64M \$185/220
ASUS V8200T2 DDR Pure 64M \$245
ASUS V8200T2 DDR Deluxe 64M \$305

ECS Laptop

15 TFT, 20GB HD, 128MB DDR
DVD, LAN, Modem/4 USB
W/Intel P4-1.6G \$1659
W/Intel P4-1.8G \$1739
Via 1Gig, 14.1TFT, 10G HD
LAN, Modem, 4 USB Ports
128MB+CDROM \$ 969
256MB+CDROM \$1009
256MB+DVDROM \$1059

HARD DRIVE

MAXTOR/QUANTUM
20GB 5400/7200 \$ 97/113
40GB 5400/7200 \$110/128
61GB 5400/7200 \$139/155
81GB 5400/7200 \$180/195
120GB 5400 \$ 270
160GB 5400 \$ 380
CDRW/DVD/DVDRW
Sony/Bow 8x4x32 \$ 80
Pioneer 24x10x40 \$ 99
LG/Jaurek 24x10x40 \$110
LG/Jaurek 32x10x40 \$115
Mitsumi (16M) 32x10x40 \$125
LG 12x8x32/4x CD-RW/DVD \$121

Intel C-1G \$419

Intel C-1.2 \$ 439
Intel C-1.3G \$449
PIII M/B w/2 USB Ports
128MB SDRAM
20GB HDD/48x AOpen
1.44FD/300W ATX Case
64MB SIS Video Shared
6 Channel Stereo Sound
56K Modem, 10/100 LAN
Win98 K/B, Mouse, SPK

\$209

Upgrade Combo
Duron 950 CPU
+ ECS Mainboard
(Sound/LAN on board)
+ 256M SDRAM
OR
VIA (IBM) 1.0Giga
+ Mainboard
(Video, Sound, LAN, 56K)
+ 256M SDRAM

Intel P4 1.6G \$569

Intel P4 1.7G \$629
Intel P4 1.8G \$679
P4 DDR-266 M/B w/2 USB
128MB RAM
40GB HDD/48x AOpen
1.44FD/300W ATX Case
319.64MB Video Shared
16 Bit Stereo Sound
56K Modem/10/100 LAN
Win98 K/B, Mouse, SPK

\$299

Upgrade Combo
XP1800+
+ MSI Mainboard
(Sound/LAN on board)
+ 256M SDRAM
OR
Intel P4 1.0Giga
+ Mainboard
(Video, Sound, LAN, 56K)
+ 256M SDRAM

Intel P4 1.6G \$659

Intel P4 1.7G \$699
Intel P4 1.8G \$749
MSI P4 333 DDR M/B
128MB DDR RAM
40GB HDD/48x AOpen
1.44FD/300W ATX Case
All Rage 128 32M Video
16 Bit Stereo Sound
56K Fax/Voice Modem
Compaq K/B, Mouse, SPK

\$299

Upgrade Combo
XP1800+
+ MSI Mainboard
(Sound/LAN on board)
+ 256M SDRAM
OR
Intel P4 1.0Giga
+ Mainboard
(Video, Sound, LAN, 56K)
+ 256M SDRAM

Intel P4 1.6G \$719

Intel P4 1.7G \$759
Intel P4 1.8G \$809
ASUS P4S333-M M/B
128MB DDR RAM
40GB HDD/48x AOpen
1.44FD/300W ATX Case
GeForce2 64M Video
16 Bit Stereo Sound
56K Modem, 10/100 LAN
Compaq K/B, Mouse, SPK

\$299

Upgrade Combo
XP1800+
+ MSI Mainboard
(Sound/LAN on board)
+ 256M SDRAM
OR
Intel P4 1.0Giga
+ Mainboard
(Video, Sound, LAN, 56K)
+ 256M SDRAM

Intel P4 1.6G \$839

Intel P4 1.7G \$879
Intel P4 1.8G \$929
MSI Intel 845Ultra M/B
256MB DDR RAM
40GB HDD/16x DVD
1.44 FD/300W ATX Case
GeForce2 64M Video
16 Bit Stereo Sound
56K Fax/Voice Modem
Compaq K/B, Mouse, SPK

\$299

Upgrade Combo
XP1800+
+ MSI Mainboard
(Sound/LAN on board)
+ 256M SDRAM
OR
Intel P4 1.0Giga
+ Mainboard
(Video, Sound, LAN, 56K)
+ 256M SDRAM

SPRING CLEARANCE SALE!

hp 16x CD-R MEDIA 10 PACK 700MB 80 MIN JEWEL CASE 1+ \$8.99 5+ \$7.99	COMPACT FLASH MEMORY CARDS 48MB - \$49.99 64MB - \$59.99 128MB - \$99.99	USB PEN DRIVE FLASH MEMORY DRIVE WITH DOCKING STAND 32MB - \$49.99 64MB - \$99.99	MOTHERBOARD & CPU COMBO 500 Mhz NEW PULLS 1.0 Ghz \$139.99 - \$199.99	MAINBOARD + CPU + MEMORY + VIDEO 500 Mhz 128MB SDRAM VEGA MAIN BOARD ATI 9800 AGP \$199.99 BRAND NEW!	LG Electronics PORTABLE MP3 PLAYER WITH 32MB \$79.99 REFURBISHED	PHILIPS SA107 MP3 PLAYER WITH 64MB SMART MEDIA CARD \$149.99 REFURBISHED	PHILIPS EXP103 MP3/CD PLAYER WITH 100SEC ANTI-SKIP \$119.99 REFURBISHED
AST 15" SVGA .28DP MONITOR \$99.99 REFURBISHED	LARGAN 350 DIGITAL CAMERA 640X480 - FLASH - S/W \$69.99 BRAND NEW!	4MB PCI VIDEO WITH TV TUNER \$39.99 REFURBISHED	ATI Radeon chipset video card w/TV out 32MB SDRAM 64MB SDRAM DUAL HEAD DUAL HEAD \$79.99 - \$129.99	IDE CD-RW BRAND NEW! - 1 YEAR WARRANTY RETAIL BOX 16x10x32 24x10x40 \$109.99 - \$129.99	MAJOR BRAND IDE CD-RW RETAIL BOXED KIT REFURBISHED - 1 YEAR WARRANTY 8x4x32 12x8x32 \$84.99 - \$99.99	LG Electronics CD-RW + DVD-ROM COMBO DRIVE 8x4x32 CDRW + 8x DVD \$139.99 BRAND NEW!	SAMSUNG 12x DVD-ROM \$69.99 REFURBISHED
MAJOR BRAND 17" SVGA .28DP MONITOR \$129.99 REFURBISHED	ViewSonic 17" MONITOR .27 DP 16.0" VIEWABLE \$179.99 REFURBISHED	ViewSonic PERFECT FLAT MONITORS 17" 19" .25 DP 16.0" VIEWABLE \$219.99 - \$329.99	PLUSTEK MULTIFUNCTION - SCANNER - DIGITAL COPIER - COLOUR PRINTER \$199.99 BRAND NEW!	hp 9100 CD-RW DRIVE 8x4x32 + FREE 10PK CD-R MEDIA \$99.99 BRAND NEW!	hp EXTERNAL CD-RW DRIVE 4x4x6 USB \$169.99 REFURBISHED	hp DVDi DVD WRITER BURNS: CD-R CD-RW DVD-RW \$499.99 BRAND NEW!	HARD DRIVES 20GB 5400 RPM \$109.99 BRAND NEW!
MITSUBISHI 21" 25 - 30 DP SVGA 1600 x 1200 DPI \$299.99 REFURBISHED	PHILIPS FLAT PANEL 15" 150P 17" 170B \$549.99 - \$899.99	4 PORT USB MINI HUB \$24.99 BRAND NEW!	SMARTKEY FLATBED SCANNER USB / PAR - 36 BIT 1200 x 600 \$79.99 BRAND NEW!	10/100 ETHERNET CARD REALTEK SMC \$11.99 - \$17.99	24x CD-ROM \$29.99 REFURBISHED	48x CD-ROM \$38.99 REFURBISHED	IBM 8.1GB PCMCIA HARD DRIVE \$149.99 BRAND NEW!
Logitech QUICK CAM EXPRESS USB 320 x 280 640 x 480 \$39.99 - \$49.99	Logitech OPTICAL MOUSE PS/2 & USB \$24.99 BRAND NEW!	Logitech WIRELESS OPTICAL MOUSE \$49.99 REFURBISHED	hp INTERNET KEYBOARDS PS/2 OR USB \$29.99 REFURBISHED	harman/kardon 2 PIECE SPEAKER SET \$19.99 REFURBISHED	PHILIPS 3 PIECE SUB-WOOFER SET \$29.99 REFURBISHED	SMC WIRELESS ACCESS PCMCIA POINT \$189.99 - \$119.99	INTEL WIRELESS NETWORKING 1.6 MBPS USB \$59.99 PCMCIA \$49.99

VISIT OUR WEBSITE FOR SPECIAL CORPORATE, GOVERNMENT, & DEALER PRICING

ORDER DIRECTLY OFF THE WEB AT factorydirect.ca

WE NOW SHIP CANADA WIDE!

ORDER HOTLINE (905) 660-1400

PENTIUM 166 32 MB 2 GB CD-ROM \$89.99 - \$129.99	MAJOR BRAND P PRO 200 64 MB 3 GB CD DUAL CPU CAPABLE \$129.99	BUNDLE DEAL AST + AST 15" SVGA MONITOR PENTIUM 166 32 MB 2 GB CD-ROM \$174.99 REFURBISHED	AMD 300 Mhz 64 MB 3 GB CD-ROM 10/100 \$189.99 REFURBISHED	PHILIPS REAL FLAT MONITORS 17" 107T 109B 19" .25 DP 1 YEAR WARR \$199.99 - \$329.99	IBM ThinkPad 380XD P11 300 64 MB 4 GB CD 13.3 TFT \$799.99 REFURBISHED
MAJOR BRAND P11 300 64 MB 4 GB CD-ROM \$219.99 REFURBISHED	MAJOR BRAND P11 400 64 MB 4 GB CD-ROM \$299.99 REFURBISHED	INTEL NAME BRAND (OEM) INTEL 600Mhz 64MB 10GB CD 56K KEYBOARD & MOUSE BY HP \$399.99 - \$549.99	hp HEWLETT PACKARD 750Mhz CD-RW W98 BRAND NEW! WITH 64MB - 15GB 128MB - 30GB \$599.99 - \$649.99	TOSHIBA P11 366 TECRA 8000 128 MB RAM 10 GB 14.1 TFT REFURBISHED WITH CD \$899.99 - \$999.99	ASUS GFORCE2 V7700 32MB AGP \$99.99 OEM REFURBISHED
SOLAR microsystems CELERON 1.0 Ghz 128MB RAM 20GB HD CD-RW REFURBISHED \$599.99	COMPAQ P111 800 128MB 15GB CD / W2000 \$649.99 REFURBISHED	hp HEWLETT PACKARD 1.3Ghz 256MB 40GB CD-RW \$849.99 REFURBISHED	SOLAR microsystems P4 1.6 Ghz 128MB RAM 40GB HD CD-RW REFURBISHED \$899.99	TOSHIBA P111 500 64 MB RAM 12 GB DVD / W98 14.1 TFT \$1399.99 REFURBISHED	ViewSonic PERFECT FLAT MONITORS P220F 22" .25 DP 20.0" VIEWABLE \$599.99 1 YEAR WARR REFURBISHED
hp HEWLETT PACKARD 1.4Ghz XP 256MB 40GB CD-RW \$949.99 REFURBISHED	hp HEWLETT PACKARD 1.6 Ghz 512MB 40GB CD-RW DVD / W98 \$1299 BRAND NEW!	hp HEWLETT PACKARD 1.8 Ghz 512MB 60GB CD-RW DVD / W98 \$1399 BRAND NEW!	hp HEWLETT PACKARD 2.0Ghz 256MB 40GB CD-RW DVD \$1499 REFURBISHED	TOSHIBA P111 600 PORTEGE 7200 64 MB RAM 12 GB DVD / W98 13.3 TFT \$1499.99 REFURBISHED	

SCARBOROUGH 1309 Kennedy Rd. (S. of Ellesmere) (416) 759-7788
 TORONTO 290 College St. (W. of Spadina) (416) 962-7788
 BRAMPTON 267 Queen St. E. (W. of Hwy 410) (905) 796-7788
 ORANGEVILLE 218 Broadway Ave. (W. of Hwy 10) (519) 941-6624
 HAMILTON 77 James St. N. (Inside Liquidation World) (905) 523-7671

SCARBOROUGH, HAMILTON, & TORONTO STORES NOW OPEN SUNDAY - Noon-5pm

Prices are already 3% Cash Discounted. Products available in Limited Quantities. Prices are subject to change without notice. Factory Direct is not responsible for Typographical errors. Some products may be refurbished or contain refurbished parts. Call for details

OUTLET HOURS: 11am-7pm MON.-FRI. / 10am-6pm SAT.

SERVICE HOURS: 11am-5pm MON.-FRI. / 10am-5pm SAT.

factorydirect.ca
 Canada's Computer Liquidators



SPRING MA

Ask For Our
We do or

\$499⁷⁷

SUPER STARTER

All-In-One Board
Intel Celeron 1.0 GHZ
128 Meg SD RAM
20 GB Hard Drive
1.44 Floppy Drive
52X CD ROM Drive
ATX Mid-Tower
16 Meg Shared AGP Video
104 Keyboard
MS Comp. Mouse
16 Bit 3D Sound Interface
Amplified Stereo Speakers

For Operating
System
Windows XP
Add \$140.00
(CD & License Incl.)

For Non-Integrated
Components
Add \$90.00



\$629⁷⁷

SUMMIT AMD

All-In-One Board
AMD Athlon 1800+xp
128 Meg SD RAM
20 GB Hard Drive
1.44 Floppy Drive
52X CD ROM Drive
ATX Mid-Tower
16 Meg Agp Video Interface
56K V90 Modem
104 Keyboard
MS Comp. Mouse
16 Bit 3D Sound Interface



\$999⁷⁷

SUMMIT VALUE

P4 Mainboard
Intel P4 1.6 GHZ
256 Meg SDRAM
40 GB UDMA Hard Drive
24x CD Re-Writer
1.44 Floppy Drive
P4 Mid-Tower Case
32 Meg Shared AGP Video
10/100 Lan Interface
104 Keyboard
MS Comp. Mouse
16 Bit 3D Sound Interface
120 Watt Speakers
17" SVGA Color Monitor



\$1349⁷⁷

SUMMIT

ECS P4 Mainboard
Intel P4 1.8 Ghz CPU
256 MB SDRAM (PC-133MH)
40 GB UDMA Hard Drive
1.44 Floppy Drive
24x CD Re-Writer
P4 Mid-Tower Case
GeForce2 64Meg Agp w. TV
16 BIT 3D Sound
56K V.92 Fax Modem
PS/2 Mouse
104 Keyboard PS/2
17" .23mm Samsung Monitor
Windows XP (CD & License)

Hard Drives

5400 rpm
20 GB \$109⁷⁷
40 GB \$124⁷⁷
7200 rpm
20 GB \$124⁷⁷
40 GB \$149⁷⁷
60 GB \$179⁷⁷
80 GB \$239⁷⁷



Sound Cards

16 Bit ISA/PCI \$17⁷⁷

CREATIVE

SB PCI 128 \$39⁷⁷
SB Live 5.1 \$59⁷⁷
SB Live Aud. Platinum \$279⁷⁷

Fax Modems

PCI 56K V90 \$24.77
A-Open PM PCI 56K \$49.77
U.S. Robotics
56K Winmodem \$49.77
Full Modem PCI
w. Voice \$89.77

Mississauga

4141 Dixie Rd.
Rockwood Mall
Next to Roy Bank
Tel: (905) 282-0195
Fax:

hp HEWLETT
PACKARD

Printers



Deskjet 845C \$139.77
Laserjet 1200 \$589.77

Scanners



Scanjet 4400 \$159.77

DVD/ RW

DVD/RW 100i \$699.77



50 Pack 80m
Blank CD

\$24⁷⁷



Etobicoke

868 The Queensway
Tel: (416) 201-0258
Fax: (416) 201-0186

Network Products

Routers:

DLink 4Port Router \$149.77
DLink 7Port Router \$199.77
Linksys 4Port \$139.77
Linksys 8Port \$239.77

Hubs:

3Com 5Port Hub \$79.77
DLink 4Port USB \$49.77
DLink 16Port 10/100 \$249.77

Adapters:

DLink 10/100 PCI \$29.77
3Com 3C905-TX \$59.77

North York

2150 Steeles Ave. W.
Tel: (416) 410-9555
Fax: (905) 738-8363

THE UNBI P4 EXPE

PENTI

only: \$

WOW!

WOW!

P4 Ma
CPU I
128 M
40GB
1.44 F
ATX P
52x C
16Meg
PS/2 h
Wheel
16 Bit
10/ 100

Brampton

Near Steeles & Kennedy
30 Rambler Dr #10
Tel: (905) 874-9521
Fax: (905) 874-9175

BUSINESS SALE!



In Store Service & Repair Professionals
On Site Networks for Home & Business

77 \$151977 \$172977 \$224977

P4

SUMMIT PERFORMER

SUMMIT THUNDER

HAWK MAX

ASUS P4B266-C Mainboard
Intel P4 1.8 GHz
256 MB DDR Ram (PC-266MHz)
40 GB Hard Drive 7200 rpm
1.44 Floppy Drive
24x CD Re- Writer
ATX Mid-Tower Case
ATI Rad. 7200 64Meg w. TV out
SB PCI 128 Sound Card
56K V.92 Fax Modem
104 Windows Keyboard
MS Comp. Mouse
Amplified Speakers w. Sub.
17" Samsung 750S .23 Monitor
Windows XP (CD & License)



Asus A7A266 Mainboard
CPU AMD Athlon XP 1900+
256 Meg DDR RAM PC-266
60 GB ATA/100 7200 RPM
1.44 Floppy Drive
ATX A-Open Mid-Tower
DVD-ROM Drive
ATI 7500 64Meg Video w. TV out
104 PS/2 Keyboard
Mouse with Wheel
SB Live 5.1 OEM
56k V.92 Fax Modem
Altec Lans. 300 Speakers & Sub.
17" Samsung Perf. Flat Monitor
Windows XP (CD & License)



Asus P4T-E Mainboard
CPU INTEL P4 2.0 GHZ
512 MB Rambus Memory
60GB Hard Drive 7200 rpm
1.44 Floppy Drive
ATX P4 Mid-Tower
32x CD Re- Writer
ATI Radeon 7500 64M DDR
Internet Keyboard
Wheel Mouse
Sound Blaster Live 5.1 OEM
56k V.92 Modem
Altec Lans. 300 Speakers & Sub
19" Viewsonic E90 Monitor
Windows XP (CD+License)



ELIEVABLE
RIENCE!!

UM 4
66977 !!!

inboard
INTEL P4 1.6 GHZ
3 SD Ram PC133
UDMA Hard Drive
oppy Drive
4 Mid-Tower
0 Rom Drive
AGP Video
eyboard
Mouse
Sound
Lan



Lexmark Z22
1200 DPI

\$8977

Lexmark Z33
\$11977

Lexmark Z43
2400 DPI \$12977

CDR/CDRW
Burners

Plextor 40x12x40

\$279

LG 32x10x40

\$149

ATX MID TOWER

\$4777

Mouse Keyboard
Combo



\$1477

Motherboards

Asus TUA266 \$139.77
ECS K7S5A \$119.77
Asus A7V266 \$249.77
Asus A7A266 \$159.77
Asus A7N266 \$279.77
ECS P4S5A \$149.77
Asus P4B266-C \$189.77
Asus P4S333 \$169.77
Asus P4T-E \$249.77
Integrated \$99.77
Board w. Sound,
Fax & VGA

Upgrade Upgrade

AMD Athlon

Athlon Xp 1700+
ECS K7S5A MB.
CPU Cooler
ATX Mid Tower

\$39977

P4 Upgrade !!

Pentium 4 1.6 GHZ
P4 Mainboard
128 MB Ram
P4 Mid Tower included
w. Power Supply

\$49977

Full Solution

Celeron 900 Mhz
PII/III Board + Cooler
128 MB SDRAM
16 MB AGP Video
16 bit Sound
56K v.90 F/Modem,
ATX Mid Tower

\$29977

AMD Duron

AMD Duron 1.0 Ghz
128 Meg SDRAM PC133
Socket A Motherboard
ATX Mid Tower Case

\$32977

Newmarket

1100 Davis Drive Unit #1
Tel: (905) 953-9900
Fax: (905) 953-9412

Burlington

744 Guelph Line
Tel: (905) 631-9555
Fax: (905) 631-7681

Hamilton

1320 Barton Street E.
Tel: (905) 548-9555
Fax: (905) 548-0200

St. Catharines

277 Lake St.
Tel: (905) 682-9555
Fax: (905) 682-9968

All prices already 3% cash discounted. All prices subject to change without notice. We reserve the right to limit quantities. Hawk is a trademark of Summit Direct. All trademarks and trade names are used to identify entities claiming the marks and names of their products. All trademarks are the property of their owners Summit Direct Inc. and some of their associated stores are not obligated to honor sale prices. Summit Direct Inc. will not be responsible for typing, or printing errors. System prices may change due to market fluctuations of components.

Graphic cards for game hounds

continued from page 34

actually sports better performance, for the most part. During our benchmark testing we noted that while the GeForce4 MX edged the GeForce3 at 1,024x768 with 32-bit colour and no anti-aliasing, the GeForce3 gained a fairly noticeable edge when anti-aliasing was turned on. This is because the GeForce4 MX cards don't incorporate the same level of new technology that the GeForce4 Ti series does (no pixel shaders or vertex shaders, for example).

What the GeForce4 MX series does add, though, is nView multi-monitor support (generally in a VGA/S-Video combination), Lightspeed Memory Architecture II (here in a more stripped-down form than the GeForce4 Ti sports), VPE (or Video Processing Engine, which adds hardware support for DVD playback) and Accuvision anti-aliasing technology.

While nVidia's claim was that turning anti-aliasing on wouldn't be a huge performance hit, that's not necessarily as true with the MX models as nVidia would seem to indicate — the benchmarking numbers dropped substantially as soon as the anti-aliasing was engaged. The feature is far more effective when you move to the Ti series.

Where the MX cards come through is in price. The performance is still reasonably good, mostly rivaling the higher-end GeForce3 and older GeForce2 Ultra cards, but the entry-level price makes them quite attractive overall. We looked at a pair of cards using the MX440 GPU, though there are GPUs bracketing the 440: The MX460 offers better performance, while the MX400 and MX420 processors will provide much more modest performance at a bargain-basement price (as low as US\$50) when they are finally introduced into the market.

eVGA.com e-GeForce4 MX

From: eVGA.com Corp.



www.evga.com

Estimated price: \$250 (converted from US\$160)

- GeForce4 MX 440 GPU.
- 64 MB DDR.
- AGP 4x/2x.
- VGA, S-Video out (comes with cable).
- 2,048x1,536 maximum resolution.
- Comes with *Comanche 4* trial version and *CyberLink PowerDVD*.
- Compatible with Win98/ME/NT/2000/XP.
- One-year warranty.

First thing you notice when you get this card out of the box is the big yellow fan bracket, known as the eVGA Asymmetric Cooling System, a playful touch on a fairly serious card. (Even before you get the card out of the box, you can see what it is through a window on the back, so you can verify the card is legit before you even take it home.) As a lower-end GF4, the e-GeForce4 MX is still pretty impressive, outperforming the reference GeForce2 Ultra by a substantial margin at most settings (remember that the MX is the value line and the GF2 Ultra was high-end not too long ago).

If you like playing games, but don't need insanely fast fill rates, this card still certainly

provides a lot of performance at a pretty good price.

MSI G4MX440

From: Micro-Star International

www.msicomputer.com

Estimated price: \$190

- GeForce4 MX 440 GPU.
- 64 MB DDR.
- AGP 4x/2x.
- VGA, S-Video/composite out (comes with cable).
- 2,048x1,536 maximum resolution.
- Comes with *MSI DVD, No One Lives Forever* (full version), *Aquanox* (full), *Sacrifice* (full), a 7-in-one games collection and a utilities disc.
- Compatible with Win95/98/ME/NT/2000/XP.

MSI has recently claimed the title of "Worldwide No.1 VGA Card Manufacturer" (something that we may not have realized here in Canada because the cards are perhaps not as widespread as, say, ATI's), and the addition of the GeForce4 cards to its line only add extra sales potential. The G4MX440 card will be certain to move units, too, because the performance is right at the GF4 MX level and the price is right.

This model features a gold cooling fan as its only embellishment... otherwise

continued on page 40

NORTH TORONTO (Yonge & Eglinton)

90 Eglinton Avenue E., Suite 106

Toronto, ON M4P2Y3

Mon-Fri 10:30 am - 7pm, Sat 10:30am-5pm

Tel: (416) 488 8790

Northtoronto@promaxsystem.com

Fax: (416) 482 4741



Promax
Computer Systems Inc.

RICHMOND HILL (Leslie & Highway 7)

9030 Leslie St., Unit 11

Richmond Hill, ON L4B 1G2

Mon-Fri 10am - 7pm, Sat 10am-5pm, Sun: 12pm-5pm

Tel: (905) 886 9955

Richmondhill@promaxsystem.com Fax: (905) 886 7220

Beginner	Intermediate	Multimedia	Professional	P4 Starter	NOTEBOOKS
<ul style="list-style-type: none"> Intel Celeron 1GHz 128MB PC133 SDRAM Asus TUSM MB 20GB ATA66 Hard Drive Panasonic 1.44 Floppy ACOpen 52X CD-ROM Integrated Video Integrated Sound Ethernet Network card Mini Tower ATX case Windows 98 Keyboard ACOpen wheel Mouse ACOpen 2 Pc. Speakers 1yr part&labor warranty 	<ul style="list-style-type: none"> AMD Athlon 1700XP 256MB PC2100 DDR ECS K7S5A Motherboard 40GB ATA100 Hard Drive Panasonic 1.44 Floppy ACOpen 52X CD-ROM Nvidia TNT 32M AGP 16bit sound card Ethernet Network Card Mid Tower ATX case Windows 98 Keyboard 2 Button PS/2 Mouse 2 Pc. Amplified Speakers 1yr part&labor warranty 	<ul style="list-style-type: none"> Intel Pentium4 2.0GHz 256MB PC2100 DDR Asus P4B266C MB 80GB 7200rpm ATA133 HD Panasonic 1.44 Floppy 16X DVD-ROM ATI Radeon7000 64M (v) 32bit integrated Sound Ethernet Card Mid tower P4 case Windows 98 Keyboard Logitech Optical mouse ACOpen wheel Mouse 2Pc. Spk w/Sub 30 Days free Internet 	<ul style="list-style-type: none"> Intel Pentium4 1.6 GHz 256MB PC2100 DDR ECS P4S5A Motherboard 40GB ATA100 HD Panasonic 1.44 Floppy 52X CD-ROM Nvidia TNT12 32M 4XAGP 32bit integrated Sound Integrated Ethernet card Mid Tower ATX P4 Windows 98 Keyboard ACOpen wheel Mouse 2Pc. Spk w/Sub 30 Days free Internet 	<ul style="list-style-type: none"> Intel Pentium4 1.6 GHz 256MB PC2100 DDR ECS P4S5A Motherboard 40GB ATA100 HD Panasonic 1.44 Floppy 52X CD-ROM Nvidia TNT12 32M 4XAGP 32bit integrated Sound Integrated Ethernet card Mid Tower ATX P4 Windows 98 Keyboard ACOpen wheel Mouse 2Pc. Spk w/Sub 30 Days free Internet 	Fujitsu P-2040B <ul style="list-style-type: none"> 800MHz Celeron Tm5800 256MB PC133 SDRAM 20GB Hard Drive 10.6" SXVGA TFT 1200x768 56K V.90 10/100 NIC 20 DVD-ROM+RW/24 CDRW Combo Drive Microsoft Windows 2000Pro Up to 14.5 Hours Battery Ultrathin - Only 3.4 lbs Acer 261XV <ul style="list-style-type: none"> Intel Pentium III 1G-M 256MB PC133 SDRAM 20GB Hard Drive 14.1" TFT LCD 1024x768 56K V.90 Fax modem Integrate 1.44 Floppy 10/100Base T NIC 8x DVD-ROM Microsoft Windows XP-h Norton anti-virus 2002 \$50 Mail in Rebate Acer Aspire <ul style="list-style-type: none"> Intel Pentium4 1.7G 128MB PC133 SDRAM 20GB Hard Drive 14.1" TFT 1024x768 56K V.90 Modem 10/100Base T NIC 8x DVD-ROM Windows XP Pro Norton anti-virus 2002 \$100 Mail in Rebate
\$489	\$679	\$939	\$1479	\$685	\$2745

@Cost SALE

SAMSUNG 17" 753DF

Flat Screen, 1280 x 1024

\$235

SAMSUNG LCD 15" 151S

Flat Panel, 1024 x 768

\$559

SAMSUNG 19" 955DF

Flat Screen, 1600 x 1200

\$359

MAXTOR 40G HD

7200RPM, ATA100, 2M

\$129

LG 32x10x40 CDRW

32xWrite, 10xRewrite, 40xRd

\$119

Logitech Optical Mos.

Optical Mouse with Scroll

\$20

50 Spindle Blank CD

1-24x 80Min, 700MB

\$20

LG 16X DVD-ROM

16x DVD, 48x CD

\$75

MSI GeForce4MX440 64M

DDR ram 4xAGP

\$165

Video Cards

3D Labs Oxygen Vx1 AGP

\$219

3D Labs Oxygen GVX1 AGP

720

Asus V7700 TUX GeForce 64M

195

Asus V8200 Ti 200 64M DDR

249

Asus V7100Pro G2MX400 64M

129

ATI Xpert 98 8M AGP

49

ATI Xpert 2000 PRO 32M AGP

65

ATI DV Wonder Retail

75

ATI Radeon VE 32M DDR

129

ATI Radeon 7000 64M tv/out

85

ATI Radeon 7500 64M DDR

169

ATI Radeon 8500 64M DDR

259

ATI Radeon 8500 128M DDR Ret

429

ATI All-in-Wonder Radeon 7500

285

ATI All-in-Wonder Radeon 8500

525

Nvidia GeForce2MX400 32M

75

Nvidia GeForce2MX400 64M

85

Nvidia GeForce4MX440 64M

159

MSI GeForce4 MX440 64M DDR

165

MSI GeForce4 Ti4400 64M tv/out

429

Creative Labs SB 128

35

Creative Labs SB Live! 5.1

55

Creative Labs SB Audigy Mp3

145

Aopen Crystal 32bit PCI

19

Samsung 17" 750s 27DP

195

Samsung 17" 753DF 20HP Flat

235

Samsung 19" 955DF 20HP Flat

359

Samsung 19" 900NF 25AG Flat

549

Samsung 15" LCD 151S Flat

559

LG 795FT+ 17" 0.25AG Flat

395

NEC As70 17" 27 Black

215

NEC AS75F 17" 25 Flat Black

245

NEC 15" 1550V LCD Flat Black

579

NEC 17" 1700V LCD Flat Black

959

Viewsonic E70 17" 27

255

Viewsonic E70F 17" 25

275

Viewsonic PF775 17" 25

479

Viewsonic E790 19" 26

485

Viewsonic PF790 19" 25

549

Viewsonic VE150 15" LCD Flat

599

Viewsonic VE170 17" LCD Flat

1059

Speakers

Aitec Lansing AVS500 5 Pcs

\$69

Aitec Lansing AVS300 w/ Sub

50

Aitec Lansing ATP3 3 Pc. w/Sub

89

Aitec Lansing ACS54 5 Pc. w/Sub

85

Creative Labs Inspire 2400

59

Creative Labs Inspire 4400

79

Creative Labs DIT2500 Digital

375

Logitech SR-30

159

Logitech Soundman DSR-100

159

Logitech Z540

99

Motherboards

Abit KR7A-Raid SocketA ata133

275

Abit BD7 P-DDR Intel 845

189

Asus TUSL2-C FCPGA Intel815e

149

Asus TUV4X-E 370 VIA694x

129

Asus P4T-E Intel 850 P4

255

Asus P4V333 AMD DDR333

205

Asus P4B266 Socket478 usb2.0

235

Asus P4B266C Socket 478 P4

185

Asus P4S333 Socket478 SD/DDR

155

Hard Drives

Maxtor 20GB IDE U100

109

Maxtor 40GB IDE U100

119

Maxtor 60GB IDE U100

155

IBM 60GB IDE 7200RPM U100

179

IBM 120GB IDE 7200RPM U100

435

Maxtor 20GB 7200RPM U100

119

Maxtor 40GB 7200RPM U100

129

Maxtor 60GB 7200RPM U133

159

Maxtor 80GB 7200RPM U133

209

Quantum AS 40GB 7200RPM

129

Quantum AS 40GB 7200RPM

149

AOpen 52X CD-ROM IDE

45

Creative Labs 52X CD-ROM IDE

49

Pioneer 16X DVD-Rom IDE

85

LG 16X DVD-ROM IDE

75

Toshiba 16X DVD-ROM IDE

149

Liteon 16X DVD-ROM IDE

75

Samsung 16X DVD-ROM

75

CD Recorders

AOpen 24x10x40x IDE JustLink

115

Liteon 32x12x40x IDE

119

Yamaha 24x10x40x IDE w/Sw

195

CD/DVD-ROMs

AOpen 52X CD-ROM IDE

45

Creative Labs 52X CD-ROM IDE

49

Pioneer 16X DVD-Rom IDE

85

LG 16X DVD-ROM IDE

75

Toshiba 16X DVD-ROM IDE

149

Liteon 16X DVD-ROM IDE

75

Samsung 16X DVD-ROM

75

CD Recorders

AOpen 24x10x40x IDE JustLink

11

Graphic cards for game hounds

By SEAN CARRUTHERS

One of the must-have items for hard-core gamers is a high-performance graphics card, and it's a good time to be looking for one: NVidia has recently announced the GeForce4 line of graphics processors and ATI's Radeon line continues to expand.

We've rounded up a smattering of new cards this month, and have put them through their paces using MadOnion's 3-DMark 2001 Special Edition 3-D benchmarking software (www.madonion.com). The test bench featured an AMD AthlonXP 2000+ processor, 256 MB DDR memory from Crucial (www.crucial.com) and the Shuttle Spacewalker AK35GT-R motherboard. We tested all cards using Windows XP Home Edition.

ATI Radeon

Canada's own ATI remains one of the big players in the graphics market thanks to its Radeon line of cards. While the cards aren't necessarily the best performers out there, they are nonetheless high-performing cards that come in at a much more justifiable price point. ATI also gets high marks for being the first company to really run with dual-monitor capability in a gaming card – while fellow Canadians Matrox were the first to introduce dual-head capability for the general consumer audience, those cards were more suitable for business and productivity apps, and were not a great choice for gamers.

One thing that's changed: In the past, ATI was the sole manufacturer of graphics cards containing ATI technology, but that's recently changed: Now you can also find Radeon cards under the Hercules and Gigabyte brands, among others. It's an interesting change of strategy and it will be interesting to see how that plays off for ATI.

ATI Radeon 7500

From: ATI Technologies Inc.

www.ati.com

Estimated price: \$250

- Radeon 7500 GPU.
- 64 MB DDR.
- AGP 4x/2x.
- VGA, DVI, S-Video/composite out (comes with cables and DVI-to-VGA adapter).
- 2,048x1,536 maximum resolution.
- Dual-monitor support.

- Comes with ATI multimedia centre (includes DVD player).
- Compatible with Win98/ME/NT/2000/XP.
- Three-year warranty.

Even at the more modest end of the Radeon line, you have fairly good performance: The Radeon 7500 holds its own against both the GeForce3 and the GeForce4 MX line, performance-wise, but adds dual-monitor support on the card in practice as well as principle by including the DVI connector and a dongle for use with monitors with the older VGA connector. (By contrast most of the GeForce4 MX cards we've seen specs for simply include one VGA connector and one S-Video out, which the Radeon 7500 also sports.) Arguably, the card is basic, with a smaller data pipeline, lower performance than the 8500 and a smaller software bundle (though it still comes with the DVD player other ATI cards come with). From a price perspective, the 7500 is one of the better choices, if you want to balance lower cost with reasonable performance. Those who want something better-suited for high-end gaming will want to move up to the 8500 or take a look at the more expensive GeForce4 Titanium line.

ATI Radeon 8500 64MB/128MB

From: ATI Technologies Inc.

www.ati.com

Estimated price: \$450

- Radeon 8500 GPU.
- We looked at the 64 MB DDR version.
- AGP 4x/2x.
- VGA, DVI, S-Video out (comes with cables and DVI-to-VGA adapter).
- 2,048x1,536 maximum resolution.
- Dual-monitor support.
- Comes with ATI multimedia centre (includes DVD player), and a *Half-Life* game bundle.

- Compatible with Win98/ME/NT/2000/XP.
- Three-year warranty.

Sitting on the top of ATI's performance heap is the Radeon 8500, which comes in both 64 and 128 MB versions; the 64 MB card is a slightly older model and the 128 MB version should be available for roughly the same price, according to ATI, so you'll probably want to hold out for the 128 MB unless you can get the 64 MB version at a good price break. The 128 MB version will also outperform the 64 MB version slightly and the 64 MB version (which we tested) already holds up pretty well compared to the Titanium version of the GeForce4. At \$450, it seems a bit pricey until you look at the GeForce4 cards, which are sometimes running the same cost but in U.S. currency (about \$650 Canadian).

ATI All-in-Wonder Radeon 8500DV

From: ATI Technologies Inc.

www.ati.com

Estimated price: \$629

- Radeon 8500 GPU.
- 64 MB DDR.
- AGP 4x/2x.
- DVI, and breakaway box (composite in/out, S-Video in/out, stereo audio in/out).
- DVI-to-VGA dongle included for use with standard monitors.
- Two FireWire ports (one on card, one on breakaway box).
- RF remote control included, as well as USB receiver.
- 2,048x1,536 maximum resolution.
- Dual-display support.

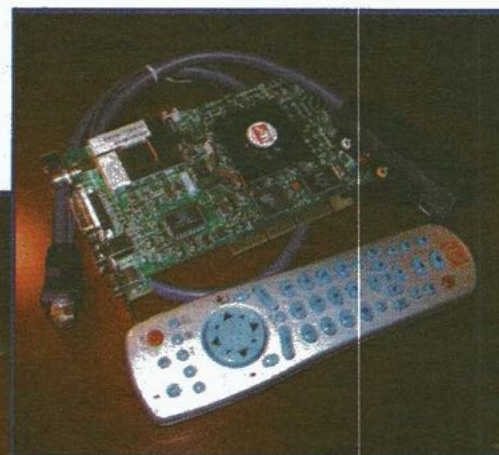
presentations), *Guide Plus+* (TV programming), as well as a pack of *Half-Life* games.

If you're looking for the full-meal deal, it's still pretty hard to beat ATI's All-in-Wonder line, which was the first consumer-level card to bring video and TV right onto the card and is still the most popular all-in-one. To save space, the card dispenses with the VGA connector in favour of DVI, instead providing a dongle in the box for those who want to use their analogue monitor. The back of the card also features one FireWire port, the CATV connector and an interface for the breakaway box, which adds the rest of the audio/video connectors. All of this is fairly impressive, allowing you to hook up your cable TV connection, your VCR or DVD and your DV cameras, but it's the software that comes with the card that makes it truly impressive. As with previous models, the software bundle includes a program that allows you to "pause" live television – essentially switching you from live TV over to hard drive recording and then replaying from the beginning of that recorded file when you return – as well as turning your PC into a "digital VCR" by recording programs at specific times. The inclusion of DV ports on this card is also a huge plus, allowing you to attach other FireWire devices, like an external hard drive. So, how much gaming performance do you have to give up for all of these extra features? Not much, as it turns out. Compared directly to the Radeon 8500 basic model, which this is based on, it scores lower, but it's still far and away better than the GeForce 2 and 3 models, and outperforms or equals GeForce4 MX models in most areas. The biggest thing you'll have to give up is a wad of extra cash, but with all the added multimedia functionality, it's not quite as hard to take as you'd think ... and it still comes in cheaper than the highest-end GeForce4 cards.

NVidia GeForce 4 MX

If you've already gotten a GeForce3 card, chances are you won't particularly need the MX version of the GeForce4 line because the GeForce3

continued on page 38



- Comes with ATI multimedia centre (includes DVD player), *Ulead Videostudio 5.0* (edit video), *Matchware Mediator* (create



We Chose Pathway. Affordable and Reliable Internet Access

DIAL-UP INTERNET SERVICES

Plan	Free hours per month	Free Web Space	Free Mailboxes	Monthly Fee	Annual Fee
PLAN 1	50	2 MB	1	\$ 9.95	\$ 99.00
PLAN 1F (Family)	100	5 MB	2	\$14.95	\$149.00
PLAN 2 (Family)	150	7 MB	3	\$19.95	\$199.00
PLAN 3	Unlimited!	9 MB	4	\$25.95	\$279.00
PLAN 3F (Family)	350	12 MB	5	\$25.95	\$279.00

WEB & EMAIL HOSTING PACKAGES

	Web Space	Email Addresses	Monthly Fee
Web 1	40 MB	10	\$19.95
Web 2	100 MB	20	\$29.95
Web 3	200 MB	40	\$59.95

NEW FASTPath - Unlimited HIGH SPEED residential Internet access with Spam control, e-mail virus scanning and a modem you can keep for \$34.95 per month.



pathway
communications

416 214-6363

info@pathcom.com www.pathcom.com

Graphic cards for game hounds

continued from page 38

it's a pretty basic unit, with the standard VGA and TV-out connectors. Where this package really shines is in the bundled software: Three full games that are fairly recent, in addition to a collection of slightly older games, as well as the MSI pack of utilities and DVD.

Even though opting for the MX version means you won't be getting the 3-D performance of the Titanium GF4, this extensive bundle at this excellent price certainly takes away any sting you might feel about opting for the more modest performance.

Nvidia GeForce4 Ti

Sitting at the top of the GeForce4 line, the two GPUs in the Ti (Titanium) series have impressive specs: Up to 1.23 trillion operations per second, up to 136 million vertices per second processing power and a 10.4 GB/second memory bandwidth. The cards sport Accuviv anti-aliasing (allowing AA to be turned on while still maintaining frame-rates better than the GeForce3 with AA off) and nView multi-display technology.

We've talked about the theoreticals of the GeForce4, but how is it in actual practice? We have to say that the rendering abilities of this chip are nothing short of stunning: One of the tests on our benchmarking software features a fully-rendered nature scene with leaves, grass, butterflies and running water, with virtually every element in the picture moving at the same time in different directions. The rendering was exceptionally smooth and the water was

rendered far more effectively than we've ever seen.

The Ti 4400 is the slightly less powerful of the two processors, while the Ti 4600 is the full-out solution.

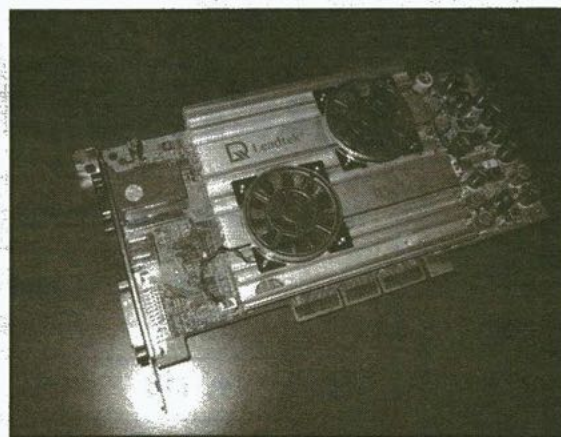
During our benchmarking we saw the differences, though compared to the other technologies, it was simply matters of degree: Both cards eclipsed the performance of the GeForce4 MX and earlier cards in the GeForce line. With GeForce4 Ti, you're simply getting the most powerful gaming card currently available.

Leadtek WinFast A250TD

From: Leadtek Research Inc.
www.leadtek.com

Estimated price: \$480 (converted from US\$299)

- GeForce4 Ti 4400 GPU.
- 128 MB DDR.
- AGA 4x/2x.
- 350 MHz RAMDAC.
- VGA, DVI, S-Video/composite out (comes with cable/adapters).
- Cooling system features large heatsink, dual fans and dust filters.
- 2,048x1,536 maximum resolution.
- Comes with WinFast DVD, Cycore Cult3D and two full games (ours came with Gunlok and Dronez).



- Compatible with Win98/ME/NT/2000/XP.
- One-year warranty.

Okay, there's no point beating about the bush: This card has the most enormous and impressive heatsink we've ever seen on a graphics card, wrapping all the way around both sides, with two high-tech cooling fans incorporating dust filters to prevent jamming or damage. The end result is that this is one of the largest cards we've ever seen, and that includes the early, early graphics cards that seemed to span the width of the PC case. That may seem like overkill, but it certainly does have its advantages: The card provides very fast performance, with the 4400 GPU providing performance that was pretty close to the 4600 GPU through all the tests. It also means that your card overheating is probably not one of the things you're going to have to worry about when you're in the heat of a Quake death-match ... worry about your fingers instead.

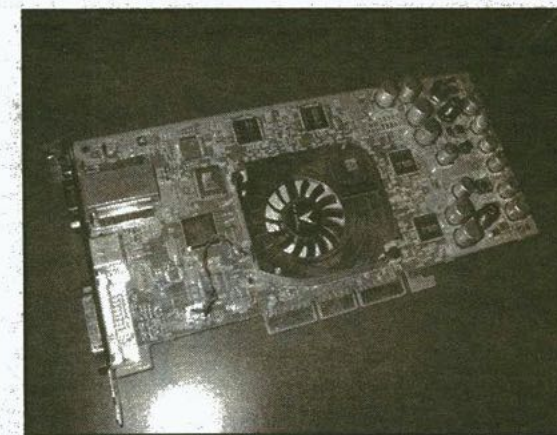
True, the 4400 doesn't provide the same level of performance that the 4600 cards would, but it's close enough that the dollars you save are pretty substantial.

Visiontek Xtasy GeForce4 Ti 4600

From: Visiontek Inc.
www.visiontek.com

Estimated price: \$640 (converted from US\$399)

- GeForce4 Ti 4600 GPU.
- 128 MB DDR.
- AGP 4x/2x.
- 300 MHz core, 650 MHz memory clock, 350 MHz RAMDAC.
- VGA, DVI, S-Video in/out (comes with



dongle).

- 2,048x1,536 maximum resolution.
- Comes with CyberLink PowerDVD XP and PowerDirector (video editing).
- Compatible with Win95/98/ME/NT/2000/XP.
- Lifetime warranty.

Something's got to be at the top of the heap, and with this batch it's this card from Visiontek, using the GeForce4 Ti 4600 GPU. Like the WinFast card, this one is also fairly long, but it has a much more compact cooling solution (with a funky nVidia graphic on it which is nonetheless more restrained than many of the other GeForce4 cooling solutions).

Looking at the benchmarking numbers, it certainly sprints ahead in every single category we tested: If you're looking for raw performance, insane frame rates and high-quality output, go with the Ti 4600. The Visiontek bundle doesn't include as much bonus software as we'd like, but it's got some good multimedia items. As far as the hardware goes, it out-kicks all this month's cards, and with the general level of performance we've seen cross-manufacturer, you can bet that its numbers are almost identical to any of the other Ti 4600 cards out there. ♦

ADVANCED COMPUTER

North York

6012A Yonge St. Tel: (416) 226-6939 Fax: (416) 226-9022



Scarborough

2390 Eglinton Ave E #210B Tel: (416) 759-3396 Fax: (416) 759-8327

Hi-Tech Computer

Toronto West 1230 Bloor St. W. Tel: (416) 588-5255 Fax: (416) 588-2487



\$ 529

Intel Celeron 1000

\$ 629

Intel PIII 1.13GHz

---256K Cache
ASUS TUSI-M MB
20GB Hard Drive
128MB SDRAM PC-133
32M TNT2 nvidia on board
52X CD-ROM
3D 16 Bit Sound on board
120W Speakers
56K V90 Fax Modem &
10/100 Network on board
1.44 Floppy Drive
Keyboard - Mouse - Pad
ATX Mid Tower Case
Intel Celeron 1200...\$549

Value Pack AMD

\$ 559

ThunderBird 1.3
ECS K7SEM MB
20GB 7200 ATA100 HDD
4X AGP Video
128MB SDRAM
52X CD-ROM
10/100 LAN & Sound
1.44 Panasonic Floppy
PS/2 Keyboard & Mouse
Aopen ATX Case
400W Subwoofer Speakers
AMD K7-1.4\$589

Value Pack P4

\$ 709

Intel P4 1.6GHz
ASUS P4S33VM MB
128MB PC2100 DDR RAM
20GB ATA100 7200 HDD
52X CD-ROM Drive
P4 ATX 300W MidTower Case
Integrated Sound, 10/100 LAN,
and AGP Video
Aopen 56K V92 Modem
400W Subwoofer Speakers
PS/2 Keyboard
PS/2 Wheel Mouse
Panasonic Floppy Drive
P4 1.8GHz\$799

SPECIAL

17" Monitor Ref.\$99
Samsung 753DF 17"....\$239
LG 19" Flat E900B....\$369
20G Hard Drive\$109
40G Hard Drive\$123
40G Maxtor 7200\$139
60G Maxtor 7200\$169
CDRW 24x10x40\$129
Network Cable 10m...\$4.99
Router 4Port USB.....\$114
PC Camera.....\$39
IEEE1394A Card\$35
USB Adapter\$35
D-Link Web/Dig.Cam.....\$109

ProSeries AMD

\$ 929

AMD Athlon XP 1700+
ASUS A7A133 MB
40GB 7200 ATA100 HDD
256MB PC133 SDRAM
GeForce2 MX400 64MB
32X10X40X CD-RW
Aopen 56K (V92)Modem
1.44 Panasonic Floppy Drive
PS/2 Keyboard & Mouse
Aopen 300W AMD Case
400W Subwoofer Speakers
AMD XP 1800+.....\$949
AMD XP 1900+.....\$989

ProSeries P4

\$ 999

-Intel P4 1.6GHz
-ASUS P4B MainBoard 478Pin
-256MB SDRAM
-Maxtor 40GB ATA100 7200 HDD
-32X10X40 CD-RW
-GeForce2 MX400 64MB
-Integrated Sound
-Aopen 56K V92 Fax/Modem
-Aopen 300W P4 Case
-400W Subwoofer Speakers
-PS/2 Keyboard
-PS/2 Wheel Mouse
-Panasonic Floppy Drive
P4 1.8G\$1079
P4 2.0G\$1199

Ultimate P4

\$ 1489

-Intel P4 1.8GHz
-ASUS P4T-E MainBoard
-256MB RDRAM 800MHZ
-Maxtor 80GB ATA100 7200 HDD
-32X10X40 CD-RW
-ATI Radeon 7500 64MB DDR
-Sound Blaster Audigy
-Aopen 56K V92 Fax/Modem
-Aopen 300W P4 Case
-AVS300 Altec Lansing Speakers
-Microsoft Internet Keyboard
-Microsoft Wheel Mouse
-Panasonic Floppy Drive
P4 2.0G\$1599
P4 2.2G\$1829

★ Network Solution ★
for Small Businesses
-On Site Service
-Internet Sharing
-Printer Sharing
-Home & Office Setup
-Cabling

PARTS FOR SALE
CALL FOR BEST PRICES!

FREE ESTIMATE
FOR UPGRADE AND
REPAIR
(Bring your System In)

NOTEBOOKS
NEW-USED
FOR SALE
NOTEBOOKS PARTS.....CALL

Upgrade
To Intel P4 1.6GHz
P4 Motherboard With 32MB AGP Video
Sound = 10/100 Lan = 56K Modem
P4 300W Case
\$479

COMPUTER COURSES
PC Assembly &
Troubleshooting\$200
Internet\$150

All prices are cash discounted.
Prices and availability are subject
to change without prior notice
Financing Available
All Systems have 1 to 3 Years
Parts & Labor Warranty.
Free Local Delivery

Setting up a virtual cockpit

By NESTOR GULA

Real flight simulators cost about \$15 million. Private citizens cannot buy them. In fact, they cost so much it would be cheaper to learn to fly and buy a plane. Unfortunately, even this is out of reach for most people.

For those intent on maximizing their flight simulator experience or those who have some rather substantial bucks to burn and need all the gadgets, you can get a flight yoke, rudder pedals and throttle control to supplement and enhance your simulation experience. Made by CH Products and available at Radio Shack, the Flight Sim Yoke, Prop Throttle and Pro Pedals are sold separately.

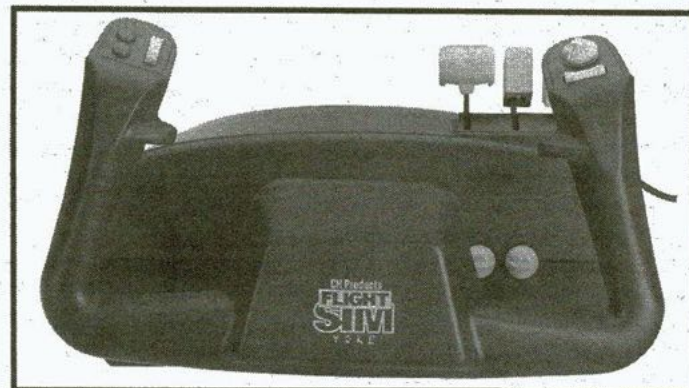
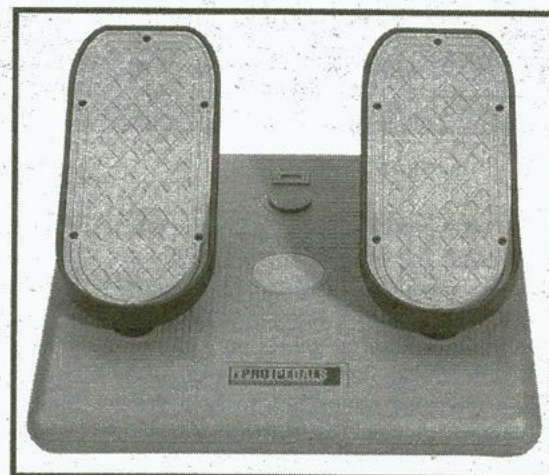
The Flight Yoke is perhaps the most interesting. The steering wheel setup is akin to most commercial aircraft — turning moves the ailerons, pushing it lowers the nose and pulling it raises the nose of the plane. The USB version comes with six buttons, two rocker switches, three levers and one eight position POV switch. While the buttons are all programmable, two of the large buttons operate the flaps and landing gear right out of the box. The rocker switches can be programmed to operate the rudder if one does not get the Pro Pedals. Of the three levers, the best is the first — it is preprogrammed to control the throttle. The other two are preprogrammed to work with the propeller and mixture control.

The Pro Pedals are also quite interesting. Mounted on a solid base, they are an attempt to mimic real rudder pedals. They operate easily and if you press down on them they also work as brakes for the aircraft. The Pro Throttle comes with a plethora of buttons, making it a game controller all its own. It has three four-way hat switches, one eight-way hat switch, three buttons and a three-way mode switch that lets you program 69 different functions. It also has a mini joystick that will let you fly the plane or have movement in other games.

I found the Pro Throttle a bit over the top. I never got around to programming the thing and only used it as a throttle — something that the Flight Sim Yoke could do very well. As well, all these devices are USB so I had to get a powered USB hub to plug the three game con-

trollers into the computer. The Pro Pedals were solid and did not slide. It was actually very interesting steering the plane with your feet while taxiing — definitely a new experience. The Flight Sim Yoke was excellent in functionality except the materials and construction seemed a little bit too flimsy for my liking. The unit is attached to the desktop with two short and small claws. The unit therefore rocks when any large force is applied to it. This is not an issue when you are serenely flying a plane in *Flight Simulator 2002* but if you are going to be playing a combat flight sim game, like the demos included with the unit, then this does get in the way. I also tested it with several car racing simulations and it is a truly bizarre experience to drive — you accelerate by pushing in on the yoke and brake by pulling back. Not all racing games recognized the wheel and the pedals.

I liked the Flight Sim Yoke and the Pro Pedals but would pass on the Pro Throttle unless you really don't want to use the keyboard and need 69 buttons programmed on the throttle. The cost of these items will be a barrier for most but the true flight simulator aficionado will undoubtedly see through this. I tested this with various products and it really worked best with the *Flight Simulator 2002* package or the older variants. ♦



more INFO

Flight Sim Yoke
\$239.99
Pro Pedals
\$219.99
Pro Throttle
\$239.99
CH Products
www.chproducts.com

Requirements:
Windows 95/98/2000/ME/Mac OS 8.6 and
above
USB port

3115 Dufferin Street & Lawrence, North York
Tel: (416) 782-9988
FAX: (905) 947-8817
Mon-Fri: 12:00-19:30
Sat: 12:00-17:00 Sun: 12:00-16:00

SUPER IDEA

ALL PRICE ARE ALREADY 4% CASH DISCOUNTED. AVAILABILITY & PRICE SUBJECT TO CHANGE WITHOUT NOTICE.

333 Denison St., Unit 18
Denison & Woodbine, Markham
Tel: (905) 947-8868
FAX: (905) 947-8817
Mon-Fri: 11:00-18:30
Sat: 11:00-17:00

<p>INTEL CELERON 1G \$429 CELERON 1.3G \$469 P-III 1.13G \$539</p> <p>128MB PC133 SDRAM Shared AGP Video 20GB HDD/1.44FDD 56K IDE CDROM 56K Fax Modem/Lan 3D Sound & Spk. ATX Case MID Tower Case PS/2 KB & MOUSE</p>	<p>AMD DURON 1G \$439 DURON 1.2G \$479 XP 1700 \$539</p> <p>ECS K755A MB 128MB PC133 SD Ram 32M AGP VIDEO 20GB HDD/1.44FDD 56K IDE CDROM 56K V.90 Fax Modem/Lan 3D Sound & Spk. ATX 300W MID Tower Case INTERNET KB & WHEEL MOUSE</p>	<p>P4 1.6G \$639 1.7G \$679 1.8G \$719</p> <p>ECS P455A MB 128MB PC133 SDRAM 32M AGP VIDEO 20GB HDD/1.44FDD 56K IDE CDROM 56K V.90 Fax Modem 3D SOUND & Spk. ATX 300W P4 MID Tower Case INTERNET KB & WHEEL MOUSE</p>	<p>XP 1700 \$719 1800 \$749 1900 \$789</p> <p>MSI KT3 ULTRA 333 MB 256MB DDR Ram Geforce2 Mx400 64M AGP 40GB HDD/1.44FDD 56K IDE CDROM 56K V.90 Fax Modem 3D SOUND & Spk. ATX 300W MID Tower Case Internet KB&WHEEL MOUSE</p>																																																
<p>P4 1.6G \$689 1.7G \$729 1.8G \$769</p> <p>ASUS P4S333 M MB 128M DDR RAM TNT2 M64 32M AGP 20GB HDD 7200 RPM/1.44 FDD 16X IDE CDROM 56K V.90 Fax Modem 3D SOUND & Spk. ATX 300W MID Tower Case INTERNET KB & WHEEL MOUSE</p>	<p>XP 1700 \$759 1800 \$789 1900 \$829</p> <p>ASUS A7V333 MB USB2.0 256MB DDR Ram Geforce2 Mx400 64M AGP 40GB HDD/1.44FDD 56K IDE CD ROM 56K V.90 Fax Modem 3D SOUND & Spk. ATX 300W MID Tower Case INTERNET KB & WHEEL MOUSE</p>	<p>P4 1.7G \$929 1.8G \$979 1.9G \$1029</p> <p>ASUS P4B266-C MB 256MB DDR Ram Geforce2 Mx400 64M AGP 40GB HDD/1.44FDD 24X10X40 CD/RW 56K V.90 Fax Modem 128 S.B PCI & SUB Spk. ATX 300W MID Tower Case Internet KB & WHEEL MOUSE</p>																																																	
<p>CDROM & DVD & CD/RW</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>56X Aopen CDROM</td> <td>42</td> </tr> <tr> <td>Sony/Lg/Samsung 16X DVD</td> <td>69</td> </tr> <tr> <td>Panasonic/Toshiba DVD 16X</td> <td>72</td> </tr> <tr> <td>Pioneer DVD 16X/SLOT</td> <td>72/85</td> </tr> <tr> <td>LG24x10x40/32X10X40</td> <td>107/119</td> </tr> <tr> <td>AOPEN 24X10X40 JUSTLINK</td> <td>109</td> </tr> <tr> <td>MITSUMI 24X12X40 CD/RW</td> <td>115</td> </tr> <tr> <td>Sony 24X10X40 CD/RW</td> <td>115</td> </tr> <tr> <td>Plextor 24X10X40/40X12X40</td> <td>199/245</td> </tr> <tr> <td>Yamaha 24X10X40</td> <td>185</td> </tr> </table>				56X Aopen CDROM	42	Sony/Lg/Samsung 16X DVD	69	Panasonic/Toshiba DVD 16X	72	Pioneer DVD 16X/SLOT	72/85	LG24x10x40/32X10X40	107/119	AOPEN 24X10X40 JUSTLINK	109	MITSUMI 24X12X40 CD/RW	115	Sony 24X10X40 CD/RW	115	Plextor 24X10X40/40X12X40	199/245	Yamaha 24X10X40	185	<p>HARD DRIVE</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Maxtor 5400RPM</td> <td>95/109/138</td> </tr> <tr> <td>20/40/60</td> <td>177/259/378</td> </tr> <tr> <td>Maxtor Quantum 7200RPM</td> <td></td> </tr> <tr> <td>20/40/60/80</td> <td>112/123/153/192</td> </tr> <tr> <td>WD 5400RPM</td> <td></td> </tr> <tr> <td>20/40/80</td> <td>99/106/179</td> </tr> <tr> <td>WD 7200RPM</td> <td></td> </tr> <tr> <td>20/40/60</td> <td>108/125/162</td> </tr> <tr> <td>80/100/120</td> <td>195/283/302</td> </tr> <tr> <td>IBM 7200RPM</td> <td></td> </tr> <tr> <td>40/60/80/120</td> <td>125/156/199/309</td> </tr> <tr> <td>REMOVABLE RACK</td> <td>18</td> </tr> </table>				Maxtor 5400RPM	95/109/138	20/40/60	177/259/378	Maxtor Quantum 7200RPM		20/40/60/80	112/123/153/192	WD 5400RPM		20/40/80	99/106/179	WD 7200RPM		20/40/60	108/125/162	80/100/120	195/283/302	IBM 7200RPM		40/60/80/120	125/156/199/309	REMOVABLE RACK	18
56X Aopen CDROM	42																																																		
Sony/Lg/Samsung 16X DVD	69																																																		
Panasonic/Toshiba DVD 16X	72																																																		
Pioneer DVD 16X/SLOT	72/85																																																		
LG24x10x40/32X10X40	107/119																																																		
AOPEN 24X10X40 JUSTLINK	109																																																		
MITSUMI 24X12X40 CD/RW	115																																																		
Sony 24X10X40 CD/RW	115																																																		
Plextor 24X10X40/40X12X40	199/245																																																		
Yamaha 24X10X40	185																																																		
Maxtor 5400RPM	95/109/138																																																		
20/40/60	177/259/378																																																		
Maxtor Quantum 7200RPM																																																			
20/40/60/80	112/123/153/192																																																		
WD 5400RPM																																																			
20/40/80	99/106/179																																																		
WD 7200RPM																																																			
20/40/60	108/125/162																																																		
80/100/120	195/283/302																																																		
IBM 7200RPM																																																			
40/60/80/120	125/156/199/309																																																		
REMOVABLE RACK	18																																																		
<p>VIDEO CARD</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>SIS 8M PCI</td> <td>35</td> </tr> <tr> <td>ATI Xpert 98 8M AGP/PCI</td> <td>32/55</td> </tr> <tr> <td>ATI Xpert 2000 32M PRO AGP</td> <td>53</td> </tr> <tr> <td>ATI TV Wonder/USB/DV Wonder</td> <td>85/115/65</td> </tr> <tr> <td>ATI ALL-IN-W. Radeon 7500/8500</td> <td>239/459</td> </tr> <tr> <td>ATI Radeon 7000 32M/64M AGP</td> <td>69/82</td> </tr> <tr> <td>Geforce 2 MX400 64M AGP/TV</td> <td>83/92</td> </tr> <tr> <td>TNT2 32M AGP/TV OUT/PCI</td> <td>47/59/69</td> </tr> <tr> <td>Asus V7100 Pro Gef2 Mx400 64M</td> <td>125</td> </tr> <tr> <td>Asus V7100 Magic Gef2 32M/TV</td> <td>75/88</td> </tr> </table>				SIS 8M PCI	35	ATI Xpert 98 8M AGP/PCI	32/55	ATI Xpert 2000 32M PRO AGP	53	ATI TV Wonder/USB/DV Wonder	85/115/65	ATI ALL-IN-W. Radeon 7500/8500	239/459	ATI Radeon 7000 32M/64M AGP	69/82	Geforce 2 MX400 64M AGP/TV	83/92	TNT2 32M AGP/TV OUT/PCI	47/59/69	Asus V7100 Pro Gef2 Mx400 64M	125	Asus V7100 Magic Gef2 32M/TV	75/88	<p>FAX MODEM & SOUND CARD</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>56K Motorola V.90</td> <td>19</td> </tr> <tr> <td>56K Aopen V.90 PCI</td> <td>25</td> </tr> <tr> <td>56K USB V.90 Win/Hardware</td> <td>39/79</td> </tr> <tr> <td>32BIT S.C/128 S.B PCI</td> <td>17/33</td> </tr> <tr> <td>S.B. LIVE DIGITAL 5.1</td> <td>62</td> </tr> <tr> <td>S.B. AUDIGY Mp3+</td> <td>139</td> </tr> </table>				56K Motorola V.90	19	56K Aopen V.90 PCI	25	56K USB V.90 Win/Hardware	39/79	32BIT S.C/128 S.B PCI	17/33	S.B. LIVE DIGITAL 5.1	62	S.B. AUDIGY Mp3+	139												
SIS 8M PCI	35																																																		
ATI Xpert 98 8M AGP/PCI	32/55																																																		
ATI Xpert 2000 32M PRO AGP	53																																																		
ATI TV Wonder/USB/DV Wonder	85/115/65																																																		
ATI ALL-IN-W. Radeon 7500/8500	239/459																																																		
ATI Radeon 7000 32M/64M AGP	69/82																																																		
Geforce 2 MX400 64M AGP/TV	83/92																																																		
TNT2 32M AGP/TV OUT/PCI	47/59/69																																																		
Asus V7100 Pro Gef2 Mx400 64M	125																																																		
Asus V7100 Magic Gef2 32M/TV	75/88																																																		
56K Motorola V.90	19																																																		
56K Aopen V.90 PCI	25																																																		
56K USB V.90 Win/Hardware	39/79																																																		
32BIT S.C/128 S.B PCI	17/33																																																		
S.B. LIVE DIGITAL 5.1	62																																																		
S.B. AUDIGY Mp3+	139																																																		
<p>MONITOR</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>SAMSUNG</td> <td></td> </tr> <tr> <td>15" SAMSUNG LCD</td> <td>535</td> </tr> <tr> <td>17" 755DF/19" 955DF</td> <td>229/365</td> </tr> <tr> <td>NEC</td> <td></td> </tr> <tr> <td>17" As70/AS75F/FE700+</td> <td>209/239/285</td> </tr> <tr> <td>19" As90/AS95F/FE950</td> <td>329/365/469</td> </tr> </table>				SAMSUNG		15" SAMSUNG LCD	535	17" 755DF/19" 955DF	229/365	NEC		17" As70/AS75F/FE700+	209/239/285	19" As90/AS95F/FE950	329/365/469																																				
SAMSUNG																																																			
15" SAMSUNG LCD	535																																																		
17" 755DF/19" 955DF	229/365																																																		
NEC																																																			
17" As70/AS75F/FE700+	209/239/285																																																		
19" As90/AS95F/FE950	329/365/469																																																		

Ctrl-Alt-Belkin

By SEAN CARRUTHERS

With the proliferation of gaming controllers on the market, it's pretty plain that the majority of game fans want more than just the keyboard and the mouse when playing games on a PC.

Belkin Components (www.belkin.com) has a few new controllers to help you with your games. The Nostromo series includes a few gamepad-style handheld controllers, but also contains a pair of interesting alternatives – the Nostromo n30 Game Mouse and the Nostromo n50 SpeedPad.

Nostromo n30 Game Mouse

Estimated price: US\$46

The n30 Game Mouse, at first glance, looks like a fairly standard mouse with fins just like on an old car, except there's one on the left and one along the back. The rear one is for design/balance only, but the one along the left hand (known as the Battle Wing) provides a thumb rest at the bottom, and a third mouse button above which is fairly difficult to hit by accident. Like many modern mice, this one features a scroll

wheel between the left and right standard mouse buttons. It connects via USB, and is compatible with Windows 98, 2000 and Millenium (one would assume compatibility with WinXP too).

The mouse comes bundled with a program called *Immersion Desktop*, which triggers the Touch Sense technology built into the mouse – when the mouse receives the proper data from the PC, it will give tactile feedback, much like force feedback joysticks. We had it set up so that when moving the mouse around on the Windows desktop, it would give a little kick every time the cursor rolled across an item on the desktop. This feature can be used in gaming to provide extra realism or can even be used just to make everyday navigation a bit easier.

One problem: Because of the design of the Battle Wing on the left side of the mouse, it will only be a right-hand device ... lefties be forewarned!

Nostromo n50 SpeedPad

Estimated price: US\$35

If the n30 is designed for use with your right hand, meet the Nostromo



companion for your left hand, the n50 SpeedPad. You only need one look at it to realize it's a more involved device than the n30: There's a palm rest at the centre, with 10 keyboard-style buttons within easy reach of the fingers, as well as a scroll wheel and an eight-direction tilt pad on the right-hand side within easy reach of the thumb.

Apart from the scroll wheel, all of the other buttons and controls can be user-programmed as single-touch triggers, either for a single key or a macro (series of commands). Any of the keys can be programmed as one of three available "shift" keys, which give you additional spots for user-defined macros/triggers.

With a careful bit of programming, all of the keyboard-based commands could be condensed down to the SpeedPad, allowing you to forget about the keyboard altogether while gaming.

The software that comes with the n50 allows you to program all of the different triggers and allows you to profile by game; simply change profiles and all of your triggers will be reset for the appropriate game or application.

The SpeedPad connects to your PC via USB and is compatible with Windows 98, ME, 2000 and XP.

Both products come with a lifetime warranty. ♦

Blank CDs
50 pcs- \$22.00

World's CHEAPEST



Computer Warehouse

3040 Danforth Ave.
Unit 5
Toronto, Ontario
M4C 1N2
PH 416 686-9788
FAX 416 686-9982

Low Lease Rates

Save on Ink &

Toner Cartridges

www.worldscheapestcomputer.com
Email: sales@worldscheapestcomputer.com

416 686-9788

Low Prices on all Monitor

**No Payments,
No Interest
for 6 months**

401	DVP	Victoria Pk
Eglinton Ave E		
Danforth Ave	MR SUB X	
Woodbine		Kingston Rd.
From Gardiner Express		

**Price
Quality
Service**
**Special Prices
for Corporate &
Government Orders**
**Specializing in
Servers, Work Stations
& Networking Products**



SPECIAL
only \$929.00
P4 1.3GHZ
with 17"+CDRW

ATX P4 Mid Tower Case
Pentium 4 Mainboard
INTEL Pentium 4 1.3 GHZ CPU
256 RAM
40.0 GB Hard Drive
1.44 Floppy
16MB Video
16X12X40 CDRW DRIVE
16 Bit Sound
17" SVGA Monitor
Windows Keyboard
MS compatible mouse
Stereo Speakers

P4 1.7 + \$88.00
P4 2.0 + \$256.00

P4 XPL-1.6

Designer ATX P4 Mid Tower Case
Quality Pentium 4 Mainboard
INTEL Pentium 4 1.6 GHZ CPU
256 RAM
1.44 Floppy
40.0 GB Hard Drive
32 MB Video Card
CDRW Drive
16 Bit Sound
17" SVGA Monitor
Windows Keyboard
MS compatible mouse
Stereo Amplified Speaker
Windows XP Home Version

\$1136.00

ASUS XPL-1.7

Designer ATX P4 Mid Tower Case 320 W
ASUS Pentium 4 Mainboard
INTEL Pentium 4 1.7 GHZ CPU
256 RAM
1.44 Floppy
40.0 GB UDMA Hard Drive ATA-100
GE-FORCE II 64 MB AGP Video Card
16X DVD ROM Drive
16X12X40 CDRW Drive (Separate Drives)
Sound Blaster Compatible 32 Bit 3D Sound
17" Daytek Monitor
10/100 Ethernet Card
Windows Enhanced Keyboard
MS compatible Scroll mouse
3pc Subwoofer Speaker System

\$1267.00

ASUS XPL-2.0

Premium Designer ATX Tower Case 300W
ASUS Pentium 4 Motherboard
INTEL Pentium 4 - 2.0 GHZ MHz CPU
512MB DDR RAM
PANASONIC 1.44 FLOPPY
120GB Hard Drive 7200 RPM
16X DVD ROM Drive
24X10x40 CDRW (Separate Drives)
ASUS Go-Force 4 MX 64 MB AGP TV-Out
CREATIVE LABS Soundblaster Audigy
D-LINK 10/100 Ethernet Card
17" SAMSUNG Dyna Flat Monitor .20 dpi
LOGITECH Wireless Keyboard
LOGITECH Wireless Mouse
480W 3D Surround Subwoofer System
Windows XP Home CD, Manual & Lic

\$2587.00

OPEN

Mon-Fri 9am-7pm
Sat 11 am-6pm
Sun -- CLOSED

SPECIAL

Asus P4B \$189.00

20GB \$105.00

Windows XP
Home
Full Version
\$149.00
Windows

CANON Printers
\$68.00

Toshiba Laptops
\$499.00 +

Upgrade Specials

	486-Pent 120	Pent 133-200	MMX166-233
Cel 800	\$219.	\$209.	\$198.
1000 TB	\$288.	\$278.	\$268.
XP1700	\$355.	\$345.	\$335.
PIII 933	\$332.	\$322.	\$312.
PIV 1.3	\$368.	\$358.	\$348.
PIV 1.7	\$423.	\$413.	\$403.

All prices are 3% cash discounted and subject to change without notice. Add 3% for credit cards, PO and terms. All orders requires a 20% deposit. Payments to be made by cash, certified cheques or Interac. Purchased price is final on ordering and cannot be re-negotiated. Warranty: 1 Yr Parts & 3 Yrs Labour

RECYCLE BIN

Used Pentium systems
\$199.00 +
Laser Printers \$299.00 +
15" LCD Displays \$547.00 +
17" Monitors \$159.00 +
Used Pentium systems \$199.00 +
Used Video Cards \$110.00 +
Used Sound Card \$5.00 +
Used Motherboard & CPUs \$30.00 +
EDO RAM CHEAP

COMPAQ
Hewlett-Packard

CISCO SYSTEMS
POWERING THE
INTERNET GENERATION

IBM



www.unitedcomputer.ca

**"Known for:
Quality Service - Fast Delivery"**

Locations in East, West and Central Ontario

**no payment no interest
for 6 months oac**

"We will beat any advertised price"

Starter Pack

1000 MHz
128 MB RAM
10 GB Hard Drive
1.44 Floppy Drive
20 MB Video (shared)
52X CD-ROM
Sound
56K Modem
Network
Keyboard
Mouse

**Win XP
\$149**
with system

\$399.99

P4 Econo System

Intel P 4 Processor
1.6 GHz
128 MB SDRAM
40 GB Hard Drive
32 MB AGP Video
52X CD-ROM
3D Soundcard
104 Keyboard
2 Button Mouse
P4 High Quality
Case

PIII 1000 MHz
+ \$150
Windows 98SE
+ \$139
17 inch Monitor
+ \$219

\$699.99

Adventure

Intel Pentium 4 1.6 GHz
MSI 645 Ultra Motherboard
128 MB DDR RAM
40 GB Hard Drive
1.44 Floppy Drive
ATI Expert 32 MB Video
52X CD-ROM
3D Soundcard
56K V.90 Modem
Internet Keyboard
Scroll Mouse
120 Watt Speakers
17 inch Monitor .27

Pentium 4
1.7 GHz
+ \$ 65
Windows 98SE
+ \$139
19 inch Monitor
+ \$150

\$999.99

Advanced P4 Power House

Intel Pentium 4 1.7GHz
ASUS P4B266-C
512 MB DDR PC266
61.4 GB @ 7200 rpm
1.44 Floppy drive
Geforce 64 MB tv-out
16X DVD ROM
Soundblaster Live 5.1

Samsung 19" 950B Monitor
56K V.90 Modem
Internet Keyboard
Optical scroll mouse
CD-rewriter 24x10x40
Windows 98SE or XP
40 CD-Titles
Corel Office Suite

Pentium 4 1.9 GHz + \$150
Geforce 3 Ti200 + \$195

\$1999.99

**FREE
Logitech
Webcam**

**TOP UP YOUR
OLD SYSTEM**

Boost your computer to 1000 MHz
• P3 MSI Mainboard upgradeable
to 1 GIG capacity
• P3 ATX Case w/Power Supply
• 128 MB PC 133 SD RAM
• Celeron 1000 MHz Processor

\$359.99

Pentium 3 1000 MHz + \$ 99
Pentium 4 1.6 GHz + \$350

HOT SALES

20 GB Hard Drive \$109.99
40 GB Hard Drive \$119.99
80 GB Hard Drive \$199.99
15" Flat Panel Monitor \$529.99
Geforce 64 MB 400 MX w/TV Out \$109.99
ATX Case \$ 34.99
High Res Logitech Web Cam \$ 49.99

256 MB Ram \$ 99.99
17" Montior \$199.99
AMD XP1700+ \$209.99
P4 - 1.7 cpu \$279.99
USB Hub \$ 29.99
Keyboard \$ 9.99
Mouse \$ 4.99
Blank 80 Minute CD's \$.49

LAPTOPS

• P2 - 300 MHz • 128 MB Ram as low as **\$899.99**

• UPGRADES • SERVICE • REPAIRS

Must Have Components

HARD DRIVES

7200RPM UDMA66/100

20GB Ultra 100 EIDE \$129.83
40GB Ultra 100 EIDE \$149.83
60 GB Ultra 100 EIDE \$179.83
80 GB Ultra 100 EIDE \$229.83
120 GB Ultra 100 EIDE \$369.83
160 GB Ultra 100 EIDE \$439.83

MOTHERBOARDS

ASUS:

P4S 333 Socket 478 AGP Intel i845 DDR \$199.83
P4B Socket 478 AGP Intel i845 3 Dimm \$179.83
P4B266-C Socket 478 Intel i845 \$189.83
P4T-E Socket 478 Intel i850 4 Rimm \$259.83
A7V-E Socket A AGP Via KT13 \$119.83
A7A266 Socket A ALIUMDA 100 \$189.83
NEW!! A7V333 Socket A w/RAID KT333 \$199.83
A7V266-E Raid Socket A Via K266 DDR \$239.83

CD ROMS

52X EIDE CD Rom Drive \$ 49.83
16X EIDE DVD Rom \$ 89.83
16x10x40 EIDE CDRW Drive \$149.83
24x10x40 EIDE CDRW Drive \$139.83
Plexwriter 24x10c40 Internal \$239.83
Plexwriter 40x10x40 Internal \$279.83
Plexwriter 24x10x40 External \$379.99

VIDEO CARDS

ATI & NVidia:

Xpert 98 8 MB SDRam AGP \$ 39.83
Xpert 2000 Pro 32 MB SDRam AGP \$ 59.83
All-in-Wonder 128 Pro w/32 MB AGP \$179.83
ATI Radeon 7000 64 MB SDR AGP \$ 99.83
ATI Radeon 7500 64 MB DDR TV Out \$159.83
ATI Radeon 8500 64 MB DDR TV Out \$279.83
Asus Geforce3 V8200 64 MB \$249.83
NEW!! Asus Geforce4 V8170 64 MB \$199.99
NEW!! Asus Geforce4 V8440 128 MB \$499.99
NEW!! Asus Geforce4 V8460 128 MB \$679.99

PRICES AVAILABLE AT THESE PARTICIPATING LOCATIONS ONLY

ETOBICOKE
781 The Queensway
(416) 252-8494

NORTH YORK
6126 Yonge Street
(416) 512-1010

PICKERING
1050 Brock Road
(905) 831-9555

TOLL FREE
1-(877)
831-9555



ALL PRICES ARE
3.5% DISCOUNTED
FOR CASH

SPECIALS ARE FOR A LIMITED TIME ONLY AND WHILE SUPPLIES LAST. PRICES MAY CHANGE WITHOUT NOTICE.

E3 preview 2002

By MARC SALTZMAN

What do you get when you combine 65,000 people, 3,000 products and over a half-million square feet?

The answer, of course, is the annual Electronic Entertainment Expo (E3).

This glitzy week-long convention each May is where members of the multi-billion dollar video game industry cram into the Los Angeles Convention Centre to peek into the future of interactive entertainment.

Granted, much of the focus on this year's E3 will be on the race between the three big consoles — the PlayStation 2, Xbox and GameCube — but there's quite a buzz about the PC gaming products, as well. The following is a brief look at what to expect.

Unlike last year, when the game was shown to a very select few behind closed doors, *Star Wars: Galaxies* from LucasArts and Sony Online Entertainment will certainly cause considerable hoopla.

The game is a jaw-dropping massively-multiplayer role-playing game (similar in scope to *Everquest*, also created by Sony Online Entertainment) but of course, it is set in the coveted *Star Wars* universe. And with *Episode II: Attack of the Clones* debuting in theatres a week before E3, you can bet the Force will be on many o' minds that week.

Galaxies will be played from a first-



person perspective, where thousands of players can simultaneously roam recognizable locations such as the planets Tatooine, Dagobah and Hoth, or even on the deck of the famed Millennium Falcon spaceship. The game should combine combat, puzzle-solving, space travel and good ol' fashioned interaction with other characters (some familiar, some not) in order to accomplish a number of main missions and side-quests.

There should also be other stellar massively-multiplayer titles to test-drive at E3, including Electronic Arts' ambitious *The Sims Online* and Blizzard Entertainment's *World of Warcraft*.

Strategy fans are looking to Microsoft to whet their appetite, and that's just what it will do.

In *Impossible Creatures*, an innovative war game from Canadian developer Relic Entertainment, gamers must play a "mad scientist" and create a variety of creatures by combining traits of more than 50 different animals. For example, fusing together a chameleon with an electric eel will yield a stealthy ranged unit. Or how about a creature with a nasty melee attack that can also burrow underground? Simply combine a rhino with a lemming.

This *Island of Dr. Moreau* style of gameplay is referred to as "bubblegum biology" by its creators and can produce thousands of custom combinations to keep the action fresh every time.



In total, there are 15 distinct missions spread across 14 islands, plus there are a handful of unique multiplayer options whereby up to six *Impossible Creatures* players can wage war online.

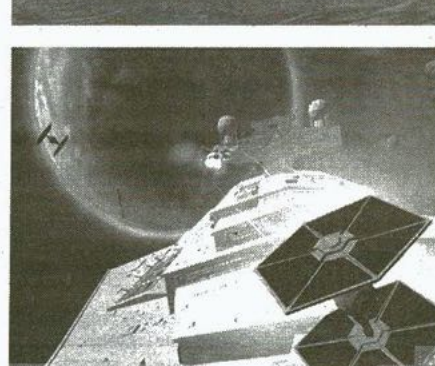
Microsoft will also show off *Age of Mythology*, created by Ensemble Studios, the designers responsible for the coveted *Age of Empires* strategy series.

As with its predecessors, players must choose a civilization and help it grow into a military, economic or technological force to contend with. But this time around, mythology is mixed into real history as mortal men must do battle with gods and monsters.

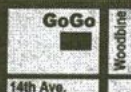
In total, there are 20 different mythological creatures based on the ancient myths of the Norse, Greek and Egyptian cultures. Perhaps you'd like to create a few Cyclops or Medusas to terrorize opponents? Or maybe a prayer to Ra or Zeus to cause a meteor shower on an unsuspecting village?

The game is also the first in the series to feature a true 3D universe, so players can rotate the screen for a better view or zoom in and out of the action. And special effects such as tornadoes, lightning, rain and earthquakes are as attractive as they are fun to induce.

Lastly, action fans — don't forget about titles such as *Doom 3* and *Tomb Raider: The Angel of Darkness* — but don't hold your breath for *Duke Nukem Forever* ... ♦



GO GO COMPUTERS



7800 Woodbine Ave, Unit 118
N/West corner of 14th & Woodbine
Phone: (905) 477-0900

Mon - Fri: 10.00 am - 7.00 pm
Sat - Sun: 11.00 am - 5.00 pm
Fax: (905) 477-2110

\$ 419		\$ 549		\$ 629		\$ 779		\$ 649		\$ 769		\$ 869	
AMD Duron 950 ECS K7VZM M.B. 128 MB PC133 SD RAM RIVA TNT2 32M AGP 40GB ATA 100 HDD 52X NEC CD-ROM / 1.44FDD 16 BIT S.C ON BOARD 56K FAX MODEM ATX CASE 300W MDTOWER KB / MOUSE / SPK AMD DURON 1.2: 459		AMD XP 1700+ ECS K7S5A 266 M.B. 128 MB PC133 SD RAM RIVA TNT2 32M AGP 40GB ATA 100 HDD 52X NEC CD-ROM / 1.44FDD 16 BIT S.C ON BOARD 56K FAX MODEM ATX CASE 300W MDTOWER KB / MOUSE / SPK AMD XP 1800+: \$569		AMD XP 1700+ MSI K7T333 M.B. 128 MB PC266 DDR RAM RIVA TNT2 32M AGP 40GB ATA 100 HDD 52X NEC CD-ROM / 1.44FDD 16 BIT S.C ON BOARD 56K FAX MODEM ATX CASE 300W MDTOWER KB / MOUSE / SPK XP1800/1900: \$649/689		AMD XP 1800+ ASUS A7V333-E M.B. 256 MB PC266 DDR RAM RIVA TNT2 32M AGP 40GB ATA 100 HDD / 1.44FDD PANASONIC 24X10X40 CDRW 16 BIT S.C ON BOARD 56K FAX MODEM ATX CASE 300W MDTOWER KB / MOUSE / SPK XP1900/2000:\$819/939		INTEL P-4 1.6A 478GHZ ASUS P4S333-M M.B. 128 MB PC266 DDR RAM RIVA TNT2 32M AGP 40GB ATA 100 HDD / 1.44FDD 52X NEC CDRW 16 BIT S.C ON BOARD 56K FAX MODEM ATX CASE 300W MDTOWER KB / MOUSE / SPK P4-1.7/1.8A: \$689/\$739		INTEL P-4 1.6A 478GHZ MSI 645 ALTRA333 M.B. 256 MBPC266 DDR GEFORCE2 MX400 64M AGP 40GB ATA 100 HDD / 1.44FDD PANASONIC 24X10X40 CDRW 16 BIT S.C ON BOARD 56K FAX MODEM ATX CASE 300W MDTOWER KB / MOUSE / SPK P4-1.7/1.8A: \$809/849		INTEL P-4 1.6A 478GHZ ASUS P4TE M.B. 256 MB RAMBUS 800 RIVA TNT2 32M AGP 40GB ATA 100 HDD/1.44FDD 16X LG DVD 16 BIT S.C ON BOARD 56K FAX MODEM ATX CASE 300W MDTOWER KB / MOUSE / SPK P4-1.7/1.8A: \$909/949	
HARD DRIVE		MAIN BOARD		MONITOR		VIDEO CARD		SOUNDCARD		DVD-ROM			
MAXTOR 40GB 5400 / 7200 \$106 / \$121 60GB 5400 / 7200 \$137 / \$149 80GB 5400 / 7200 \$171 / \$189 120GB 5400 \$252 160GB 5400 \$379		SOCKET A ECS K7S5A \$86 ASUS A7A133 \$113 MSI KT333 ALTRA \$148 ASUS A7N266 \$192 ASUS A7V333E / 333R \$189 / \$229		SAMSUNG 17" 750S/753DF/700NF \$199/225/339 19" 950B/955DF/900NF \$308/362/535 LG 17" 700S \$189 NEC 17" FE700+ white/black \$282 KDS 19" VS-190P 0.25 \$279		Radeon 7000 64M TVO \$73 Radeon 7500 64M \$119 ATI Radeon 8500 128M LE RETAIL \$292 ATI ALL-IN-WON 7500 64M RETAIL \$249 ATI ALL-IN-WON 8500 DV RETAIL \$489 RIVA TNT2 32M AGP \$44 ECS SIS 64M /TVOUT \$59/\$69 Geforce2 MX400 64M/TVOUT \$72/\$79 MICROSTAR G-For3 Ti200 128M \$229 MICROSTAR G-Force4 64m \$152 ASUS V7100 PRO64M/TVO \$118/\$139 ASUS V8200 T2 Pure/De64m \$242/\$292 ASUS V8200 64M PU/DE \$429/\$485 Nvidia Geforce4 MX440 64M DDR \$165 WinFast a250 G-For4 4400 128ddr\$439		16 BIT PCI-SC \$11 S.B. 128 BIT PCI \$25 S.B. LIVE 5.1 oem /Re \$45 / \$99 S.B. AUDIGY 5.1 oem \$92 S.B. EXTIGY PLATINUM Re \$205 S.B. PLATINUM RETAIL \$259		16X LG DVD \$65 16X Sony \$69 16X Pioneer \$79 CD-WRITER 16X10X40 Optorite re \$79 24X10X40 LG \$109 24X10X40 Sony \$112 24X10X40 Panasonic \$92 24X10X40 Plextor retail \$189 32X10X40 LG \$115 32X10X40 Mitsumi CDRW \$119 40x12x40 Plextor retail \$229 Pioneer 104 DVD-RW+SOFT \$599 PRICES SUBJECT CHANGED WITHOUT NOTICE			
SEAGATE 40GB 5400 / 7200 \$106 / \$121 60GB 5400 / 7200 \$147 / \$157 80GB 5400 / 7200 \$172 / \$195		SOCKET 478 (P4) VIA P4 P4X266A \$89 MSI 645 ALTRA333 \$108 ASUS P4S333-M / P4S333 \$119 / \$142 ASUS P4TE / IWA \$229 / \$239 ASUS P4B266C / P4B266 \$169 / \$215 ABIT TH7II \$219 ABIT SD7-533 \$135		VIEWSONIC 17" E701 / G701 \$265 / \$295 17" E751 / G751 \$280 / \$299 19" E901 / PF790 \$399 / \$539				SPEAKER Cambridge SoundWork SW320 \$49 Cambridge INSP5300 \$129 Cambridge INSP5700 \$369 Altec Lansing AVS300/500 \$39/\$55 YAMAHA -MS40 RETAIL \$75					
IBM 40GB / 60GB 7200 \$125 / \$165 80GB / 120GB 7200 \$195 / \$309				LCD 15" NEC 1550V / LG 563LE \$555/\$575 15" SAMSUNG 151S \$559 15" VIEWSONIC VE150 \$559				CD-ROM 52X NEC \$35					

Gaming with balls

By SEAN CARRUTHERS

Elsewhere in this issue we blab about gaming controllers — those special devices with lots of special buttons, maybe force feedback and sometimes special mounting clips to make sure they don't fall off the desk. One of the best gaming devices for me, though, is the trackball, especially for those first-person 3-D games.

When trackballs first hit the market, they were monolithic things, taking up half the desktop and requiring your whole palm just to move the ball. Newer generations shrunk that down considerably and the newest batch of trackballs are ergonomic wonders.

My favourite of the new batch is Microsoft's Trackball Optical. It's a well-designed device for those who are right-handed, putting a compact ball on the left-hand right at the point your thumb will naturally fall. Resting beneath the fingers are the two standard mouse buttons, a scroll wheel in-between, with two smaller buttons bracketing the whole shebang.

You may have seen optical mice — they're the ones with the red light on

the bottom. The Trackball Optical uses the same technology inside, except instead of your desktop, the optical sensors track the movement of the ball as it spins in the socket. The technology has a few advantages, including speed, precision and the ability to track properly despite dust or skin oil.

For gaming, the trackball has advantages over the traditional mouse. First up is incredible precision, especially when you're trying to look semi-randomly through 360 degrees in a first-person game. Secondly, because the base of the trackball stays put, you don't have to worry about falling off the mousepad or bashing it into your keyboard in the heat of the moment, like you might with a mouse. ♦

more INFO

Microsoft Trackball Optical
Estimated price: \$60
Microsoft Canada
www.microsoft.com

Minimum requirements:
Windows 95 or higher
PS/2 or USB port
Mac OS 8.5 or higher except OSX
USB Port

REVIEWS

The month of MAY only! Get here early!

Kram as many
as you can into
a beer box!

Selected titles
FRESH
STOCK!

Computer Books

39¢/lb

Marked down from 45¢

Beer Box Bonanza

May
Maynia!

You could carry off
books worth over
\$300!!!

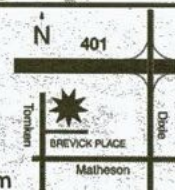


Our usual insane prices apply at our other locations:

433 Spadina Ave.
@ College Toronto, ON
416 593-4845
1350 Kennedy Rd.
@ Ellesmere Scarborough, ON
416 750-7272

SALE ONLY AT:

1020 Brevick Place,
Unit 1B/2
Mississauga
Mon-Sat: 10am-6:00pm



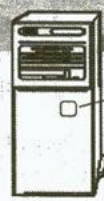
PC MANIAK

21808514

Computer Square Inc.

Wholesale & Retail

Your Computer Parts Specialist



We also
make this logo
Call for detail



Computer
Dealers
Call for wholesale
price list!



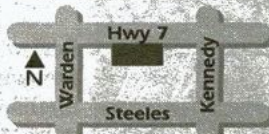
- ✓ We carry all networking items for your installation usage.
- ✓ All kinds of SCSI cable & adaptor
SCSI I, II, III, Ultra SCSI,
Ultra 2 SCSI LVD available

Enquiries

(905) 415-0229

Fax: (905) 415-0164 Toll Free 1-800-488-8615

E-mail: csquare@idirect.com



Mon-Fri: 10-7 Sat: 10-6 Sunday Close

4361 Hwy 7 East, Unit 3 & 4, Markham, Ontario, Canada L3R 1M1
(Between Warden & Kennedy)

21804614

The Sims emerge from the Myst

By GEOFF MARTIN

After spending both 2000 and 2001 as the top-selling video game, and continuing its domination of video game sales charts well into 2002, *The Sims* has now eclipsed the *Myst* franchise to become the best-selling video game of all time.

The Sims is Electronic Arts' modern-day answer to what was always promised to hopeful children in the Sea Monkeys comic book ads of yesteryear: A miniature family that will do your bidding and whose exploits you can watch from afar for hours on end. While Sea Monkeys spilled out of the package resembling tiny, lifeless, freeze-dried shrimp for those naive enough to order them, *The Sims* has actually delivered on its packaging claims, and continues to inspire add-ons and legions of fans more than

two years after its release.

The original *The Sims* game has now sold an impressive 6.4 million units and counting and boasts four add-on titles that have more than doubled the franchise's total sales, which at last count stood at a whopping 13 million.

Perhaps the most important key to the success of *The Sims* is that it is enormously popular among women, who comprise more than half of its audience. Women have rarely been targeted as the key audience for a video game in the past, but it's a safe bet that many game developers will be looking to create the next "kinder, gentler video game" in the near future. Now that game publishers are seeing irrefutable proof that a female-friendly video game can translate into big dollars, can it really be long before we see a virtual version of *Sex and the City*?



Get ready to play some data

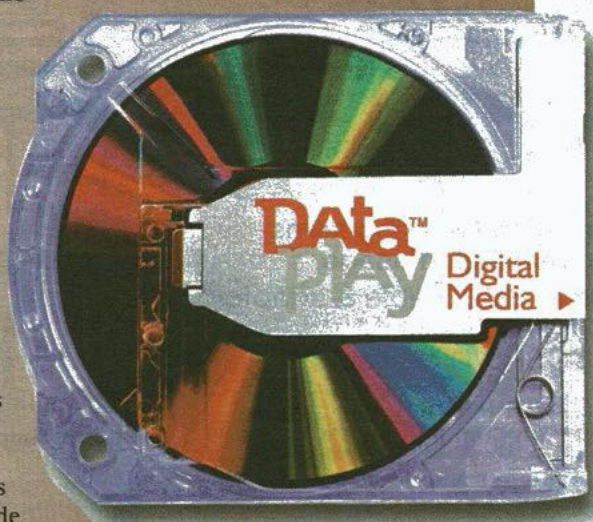
It was well over a year ago that DataPlay won Best of Show honours at the 2001 Consumer Electronics Show in Las Vegas, but what looks to be the next wave in portable media is finally hitting store shelves this month.

DataPlay (www.dataplay.com) is the proprietary name of a new form of digital media that will hold 500 MB of data on a tiny device about the size of a postage stamp, which will considerably improve the storage capacity of portable devices such as MP3 players and digital cameras, most of which currently use flash memory that maxes out at 128 MB.

The discs are starting out in audio players only, though eventually they're slated to appear in digital cameras, video cameras and handheld video games. The discs also enjoy good support out of the gate, as Samsung, Matsushita and Toshiba are all major investors, and DataPlay already has deals in place with music industry behemoths EMI, BMG Entertainment and Universal Music Group. Samsung, Matsushita and Toshiba will be releasing DataPlay audio players this month starting at about \$450, which will connect to PCs through a USB port in order to write data to the discs. There will also be about 50 full albums released in the format from its music partners and DataPlay hopes to have 300 such titles available by the end of the year.

Plans are also afoot for record labels to sell full albums that will also include one or more additional albums of a similar style; users will be able to preview the extra songs for about 30 seconds apiece, and if they want to purchase that music, all they'll have to do is connect the player to their PC, pay for it by credit card and the additional tunes will be unlocked for good.

Finally, evidence that people with demonstrable brain activity are getting creative about online music distribution.



Open your wallets, pardners

YAHOO!

Yahoo! likely has more important things on its mind (profitability, anyone?), but nevertheless, it now has one angry cowboy to add to its list of headaches.

Wylie Gustafson is the yodeling voice that wraps up just about every commercial the Web giant has ever produced, but he's not warbling such a happy tune these days, and he has the lawsuit to prove it.

Gustafson claims he was duped into accepting US\$590 to record his yodel in 1996, after being assured that his voice would be used for a one-time-only commercial.

But now that his distinctive yodel has been heard in countless TV and radio ads in the years that have followed, Gustafson is demanding an ever-so-slight pay raise totalling US\$5 million.

What Gustafson apparently doesn't realize is that there is a long tradition of paying voice actors a pittance, while the catch phrases they give life to are repeated for years to come.

James Earl Jones is perhaps best-known for two things: As the voice that says "This ... is CNN" countless times each day on the Cable News Network and as the booming voice of evil in the role of Darth Vader. It's never been disclosed how much he was paid for the CNN gig, but Jones has pointed out on more than one occasion that it was a one-shot deal that barely covered his pre-recording breakfast. Previously, for the role of Darth Vader in *Star Wars*, which eventually made its creator George Lucas a billionaire, he was paid US\$7,000. (That amount was eventually doubled when *Star Wars* became a runaway hit, and Lucas sent him a "generous" Christmas bonus.)

But the King of under-appreciated vocal chords has to be Elwood Edwards. Those not immediately familiar with Edwards' name are almost surely familiar with his voice — he owns the golden pipes that chime "You've Got Mail!" to millions of AOL users each day. Despite such widespread usage of his voice, Edwards was paid a paltry \$100 for his work in 1989 and has no hard feelings about it, choosing instead to enjoy the recognition it brings him. ♦

PREMIER COMPUTER CANADA - PCCANADA.COM

PREMIER CHOICE BRONZE

- PC Chips M925LMRT for Socket 478 CPUs or PC Chips M810LM for Socket A CPUs
- Panasonic 3.5" - 1.44MB HD Floppy Disk Drive
- 40Gb Fast Ultra-100 Hard Disk Drive @ 5400RPM
- 256MB SDRAM, PC133MHz, 168Pin RAM Memory
- Mid-Tower 6 Bay AT Case w/ 250W Power Supply
- On-Board EIDE Controller & Ultra/100 Support
- 2-USB Ports, 1-16550 Serial Ports, 1 PS/2 Mouse Port & 1-Bi-Directional Parallel Port
- On-Board AGP 3D Video w/ 64MB Buffer
- On-Board PCI Stereo Sound w/ Surround Sound
- 56k Fax/Modem w/ VoiceMail, v.90, AMR
- On-Board PCI Full Duplex Network Adapter
- Fifty-Two Speed (52) Max EIDE CD-ROM Drive
- KDS 17" Digital .27dp SVGA Colour Monitor
- Mitsumi 104 Enhanced Soft-Touch Win 95 Keyboard
- Labtec Spin 50 Amplified Powered Stereo Speakers
- Microsoft Compatible Serial Mouse and Mouse Pad
- MS Windows P Home OEM w/ CD and Manual
- 5 Years Labour & 1 Year Parts Warranty

AMD Duron 950MHz	\$874.99	or \$32/mth
AMD Duron 1.0-GHz	\$884.99	or \$33/mth
AMD Duron 1.1-GHz	\$899.99	or \$33/mth
AMD Duron 1.2-GHz	\$909.99	or \$34/mth
AMD Duron 1.3-GHz	\$939.99	or \$35/mth
AMD Athlon P-1700+	\$974.99	or \$36/mth
AMD Athlon P-1800+	\$989.99	or \$36/mth
AMD Athlon P-1900+	\$1044.99	or \$38/mth
AMD Athlon P-2000+	\$1134.99	or \$42/mth
AMD Athlon P-2100+	\$1214.99	or \$45/mth
Intel Pentium 4-1.6GHz	\$1029.99	or \$38/mth
Intel Pentium 4-1.7GHz	\$1069.99	or \$39/mth
Intel Pentium 4-1.8GHz	\$1119.99	or \$41/mth
Intel Pentium 4-1.9GHz	\$1179.99	or \$43/mth
Intel Pentium 4-2.0GHz 512k	\$1269.99	or \$47/mth
Intel Pentium 4-2.2GHz 512k	\$1479.99	or \$54/mth
Intel Pentium 4-2.4GHz 512k	\$1739.99	or \$58/mth

PREMIER CHOICE SILVER

- Abit KR7A-133 RAID Motherboard for AMD Socket A or Abit BD7-RAID Motherboard for Intel Pentium 4 CPUs
- Thermaltake Volcano 6CU+ Heat Sink/Fan for AMD CPU
- Panasonic 3.5" - 1.44MB HD Floppy Disk Drive
- 40Gb Fast Ultra-100 Hard Disk Drive @ 7200RPM
- 256MB DDR RAM, PC2100, 184Pin RAM Memory
- Premium 6 Bay Mid-Tower AT Case w/ 300W P.S.
- On-Board EIDE Controller & Ultra/100 Support
- 4-USB Ports, 2-16550 Serial Ports, 1 PS/2 Mouse Port & 1-Bi-Directional Parallel Port
- ATI Radeon 7000 AGP Video w/ 64MB & TV-Out
- 16 DVD-ROM Drive w/ 40 CDROM support
- SoundBlaster PCI 128 Plug & Play Stereo Sound Card
- Cambridge Inspire 2.1 Speaker System w/ Subwoofer
- Rockwell 56K Int. Voice/Fax/Modem v.90 (PCI)
- Smartlink 10/100Mbit Full-Duplex PCI Network Card
- KDS 17" Digital .25dp Colour CRT Monitor, Treame Flat
- Mitsumi 104 Enhanced Soft-Touch Win 95 Keyboard
- Logitech Optical Mouse w/ Wheel & Mouse Pad
- MS Windows P Home OEM w/ CD and Manual
- 5 Years Labour & 1 Year Parts Warranty

AMD Duron 950MHz	\$1354.99	or \$50/mth
AMD Duron 1.0-GHz	\$1364.99	or \$50/mth
AMD Duron 1.1-GHz	\$1379.99	or \$51/mth
AMD Duron 1.2-GHz	\$1389.99	or \$51/mth
AMD Duron 1.3-GHz	\$1419.99	or \$52/mth
AMD Athlon P-1700+	\$1454.99	or \$53/mth
AMD Athlon P-1800+	\$1469.99	or \$54/mth
AMD Athlon P-1900+	\$1524.99	or \$55/mth
AMD Athlon P-2000+	\$1614.99	or \$54/mth
AMD Athlon P-2100+	\$1694.99	or \$57/mth
Intel Pentium 4-1.6GHz	\$1489.99	or \$55/mth
Intel Pentium 4-1.7GHz	\$1529.99	or \$56/mth
Intel Pentium 4-1.8GHz	\$1579.99	or \$57/mth
Intel Pentium 4-1.9GHz	\$1639.99	or \$58/mth
Intel Pentium 4-2.0GHz 512k	\$1729.99	or \$58/mth
Intel Pentium 4-2.2GHz 512k	\$1939.99	or \$65/mth
Intel Pentium 4-2.4GHz 512k	\$2199.99	or \$73/mth

PREMIER CHOICE GOLD

- Asus P4S333 Motherboard for Intel Pentium 4 CPUs or Asus A7V333 Motherboard for AMD CPUs
- Thermaltake Volcano 7 Heat Sink/Fan for AMD CPUs
- Panasonic 3.5" - 1.44MB HD Floppy Disk Drive
- 60Gb Fast Ultra-100 Hard Disk Drive @ 7200RPM
- 256MB DDR RAM, PC2700, 184 Pin RAM Memory
- Enlight Mid-Tower AT Case w/ 7 Bays & 300W P.S.
- On-Board EIDE Controller & Ultra/100 Support
- 4-USB Ports, 2-16550 Serial Ports, 1 PS/2 Mouse Port & 1-Bi-Directional Parallel Port
- Asus v8170/DDR GeForce4 M -440 w/ 64MB & TV-Out
- Panasonic 24x10x40 CD-RW w/ Burn Software
- SoundBlaster Live 5.1 PCI Stereo Soundcard
- Altec Lansing AVS500 w/ 4 Speakers & Subwoofer
- US Robotics 56K Internal Fax/Modem v.90 (PCI)
- D-Link 10/100Mbit Full-Duplex Network Adapter (PCI)
- KDS 19" Monitor .25dp 1600x1280 NI, Treame Flat
- Keytronic 104 Enhanced Soft-Touch Win 95 Keyboard
- Microsoft Wheel Mouse Optical Mouse w/ Mouse Pad
- MS Windows P Home OEM w/ CD and Manual
- 5 Years Labour & 1 Year Parts Warranty

AMD Duron 950MHz	\$1764.99	or \$59/mth
AMD Duron 1.0-GHz	\$1774.99	or \$59/mth
AMD Duron 1.1-GHz	\$1789.99	or \$60/mth
AMD Duron 1.2-GHz	\$1799.99	or \$60/mth
AMD Duron 1.3-GHz	\$1829.99	or \$61/mth
AMD Athlon P-1700+	\$1864.99	or \$62/mth
AMD Athlon P-1800+	\$1879.99	or \$63/mth
AMD Athlon P-1900+	\$1934.99	or \$65/mth
AMD Athlon P-2000+	\$2024.99	or \$68/mth
AMD Athlon P-2100+	\$2104.99	or \$70/mth
Intel Pentium 4-1.6GHz	\$1834.99	or \$61/mth
Intel Pentium 4-1.7GHz	\$1874.99	or \$63/mth
Intel Pentium 4-1.8GHz	\$1924.99	or \$64/mth
Intel Pentium 4-1.9GHz	\$1984.99	or \$66/mth
Intel Pentium 4-2.0GHz 512k	\$2074.99	or \$69/mth
Intel Pentium 4-2.2GHz 512k	\$2284.99	or \$76/mth
Intel Pentium 4-2.4GHz 512k	\$2544.99	or \$85/mth

PREMIER CHOICE PLATINUM

- Abit TH7II-RAID Motherboard w/ i850 Chipset for P4 or Abit AT7 Motherboard for AMD CPUs
- Thermaltake Volcano 7+ Heat Sink/Fan
- Panasonic 3.5" - 1.44MB HD Floppy Disk Drive
- 120Gb Ultra/100 Hard Disk Drive @ 7200RPM w/ 8Mb
- 512Mb Rambus, PC800, Non-ECC Memory for P4 or 512Mb DDR SDRAM PC2700 Memory for AMD
- Enlight Mid-Tower AT Case w/ 7 Bays
- Pentium 4 - 300W AT Power Supply w/ 2 Fans
- On-Board EIDE Controller & Ultra/100 Support
- 4-USB Ports, 2-16550 Serial Ports, 1 PS/2 Mouse Port & 1-Bi-Directional Parallel Port
- ATI All-in-Wonder Radeon 8500 DV w/ 64MB DDR
- Plextor 40x/12x/40x CR-RW Drive w/ Software
- SoundBlaster Audigy Value PCI Stereo Soundcard
- Creative Inspire 5.1 5300 w/ 5 Speakers & Subwoofer
- US Robotics 56K Internal Fax/Modem v.90 (Hardware)
- 3COM 10/100Mbit Full-Duplex Network Adapter (PCI)
- KDS Radius Rad5 15" LCD Monitor, 297mm
- Microsoft Natural Keyboard w/ Ergonomic Design
- Logitech I-Feel Mouse w/ Mouse Pad
- Thermaltake 80mm Second Case fan
- Arctic Silver III Thermal Heat Compound
- MS Windows P Professional OEM w/ CD and Manual
- 5 Years Labour & 1 Year Parts Warranty

AMD Duron 1-GHz	\$2949.99	or \$98/mth
AMD Athlon P-1700+	\$3039.99	or \$99/mth
AMD Athlon P-1800+	\$3054.99	or \$100/mth
AMD Athlon P-1900+	\$3109.99	or \$102/mth
AMD Athlon P-2000+	\$3199.99	or \$105/mth
AMD Athlon P-2100+	\$3279.99	or \$107/mth
Intel Pentium 4-1.6GHz	\$3074.99	or \$101/mth
Intel Pentium 4-1.7GHz	\$3114.99	or \$102/mth
Intel Pentium 4-1.8GHz	\$3164.99	or \$104/mth
Intel Pentium 4-1.9GHz	\$3224.99	or \$106/mth
Intel Pentium 4-2.0GHz 512k	\$3314.99	or \$108/mth
Intel Pentium 4-2.2GHz 512k	\$3524.99	or \$115/mth
Intel Pentium 4-2.4GHz 512k	\$3784.99	or \$124/mth

Premier CPUs & Memory

AMD Duron 950MHz @ 100/200MHz (Socket A)	see web
AMD Duron 1.0-GHz @ 100/200MHz (Socket A)	see web
AMD Duron 1.2-GHz @ 100/200MHz (Socket A)	see web
AMD Duron 1.3-GHz @ 100/200MHz (Socket A)	see web
AMD Athlon 1.3-GHz @ 133/266MHz (Socket A)	see web
AMD Athlon 1.4-GHz @ 133/266MHz (Socket A)	see web
AMD Athlon P-1700+ @ 1.47GHz (Socket A)	see web
AMD Athlon P-1800+ @ 1.53GHz (Socket A)	see web
AMD Athlon P-1900+ @ 1.60GHz (Socket A)	see web
AMD Athlon P-2000+ @ 1.67GHz (Socket A)	see web
AMD Athlon P-2100+ @ 1.73GHz (Socket A)	see web
Intel Celeron 1-GHz (FC-PGA2) @ 100MHz	see web
Intel Celeron 1.1-GHz (FC-PGA2) @ 100MHz	see web
Intel Celeron 1.2-GHz (FC-PGA2) @ 100MHz	see web
Intel Celeron 1.3-GHz (FC-PGA2) @ 100MHz	see web
Intel Pentium III 1-GHz (FC-PGA2) @ 133MHz	see web
Intel Pentium 4-1.6-GHz (Socket 478)	see web
Intel Pentium 4-1.7-GHz (Socket 478)	see web
Intel Pentium 4-1.8-GHz (Socket 478)	see web
Intel Pentium 4-1.9-GHz (Socket 478)	see web
Intel Pentium 4-2.0-GHz (Socket 478) 512k	see web
Intel Pentium 4-2.2-GHz (Socket 478) 512k	see web
Intel Pentium 4-2.4-GHz (Socket 478) 512k	see web

Full List of CPUs Available Online

128 MB, SDRAM PC133MHz	see web
256 MB, SDRAM PC133MHz	see web
512 MB, SDRAM PC133MHz	see web
256 MB, DDRAM SDRAM PC2100 (266MHz)	see web
512 MB, DDRAM SDRAM PC2100 (266MHz)	see web
256 MB, DDRAM SDRAM PC2100 Registered	see web
512 MB, DDRAM SDRAM PC2100 Registered	see web
256 MB, DDRAM SDRAM PC2700 (333MHz)	see web
512 MB, DDRAM SDRAM PC2700 (333MHz)	see web
128 MB, Rambus PC800 Non-ECC	see web
256 MB, Rambus PC800 Non-ECC	see web
512 MB, Rambus PC800 Non-ECC	see web

Premier Cooling Supplies

Thermaltake Volcano 6 CU / Volcano 6 CU+	\$24.99/\$29.99
Thermaltake Volcano 7 w/ Variable Fan (5000RPM@35°C)	\$34.99
Thermaltake Volcano 7+ w/ Adjustable Fan (5000RPM)	\$59.99
Thermaltake Dragon Orb 3 - 7000 RPM	\$34.99
Thermaltake Crystal Orb (Cooler for Video Cards)	\$24.99
Thermaltake Storm Orb / Memory Cooling Kit	\$14.99/\$19.99
Thermaltake 60mm Case Fan / 80mm Case Fan	\$14.99/\$19.99
Just Cooler 60mm Case Fan / 80mm Case Fan	\$9.99/\$9.99
Cidcom FC-PGA Heat Sink / AMD Heat Sink	\$9.99/\$9.99
Arctic Silver III Thermal Paste	\$9.99
Just Cooler HD-100 Hard Drive Cooler	\$14.99
Removable Hard Drive Rack w/ Fan	\$24.99

Full List of Cooling Supplies Available Online

Rated #1 out of 1169 Vendors in Canada - computers-canada (Apr-23-02)
Visit us online at www.pccanada.com for up-to-date pricing, new products, secure ordering & fast shipping Canada wide.

Premier Motherboards

Motherboards for AMD CPUs

Abit AT7, Socket A, VIA KT333 (AT) - Non-Legacy	\$264.99
Abit KR7A-133, Socket A, VIA KT266a (AT)	\$179.99
Abit KR7A-133R, Socket A, VIA KT266a (AT) - RAID	\$204.99
Asus A7N266, Socket A, nForce (AT)	\$204.99
Asus A7V333, Socket A, KT333 (AT) - RAID	\$234.99
PC Chips M810, Socket A (MAT) w/ Video, Sound & Lan	\$114.99
PC Chips M830, Socket A (AT) w/ Sound & Lan	\$114.99
Tyan S2466N, Dual Socket A, AMD 760MP	\$334.99

Motherboards for Intel CPUs

Abit VL6T, FC-PGA2, VIA 133A (AT) UDMA/100	\$129.99
Abit BH7, Socket 478, Intel i845 Chipset (AT)	\$194.99
Abit BD7-RAID, Socket 478, Intel i845D (AT) - RAID	\$204.99
Abit TH7II-RAID, Socket 478, Intel i850 Chipset (AT)	\$264.99
Asus TUV4 - FC-PGA2, VIA 133A (AT) UDMA/100	\$134.99
Asus P4B, Socket 478, Intel i845 Chipset (AT)	\$174.99
Asus P4B266, Socket 478, Intel i845D Chipset (AT)	\$219.99
Asus P4S533, Socket 478, SIS 645 Chipset (AT)	\$174.99
Asus P4T-E, Socket 478, Intel i850 Chipset (AT)	\$239.99
PC Chips M758, PGA-370 (MAT) w/ Video, Sound & Lan	\$99.99
PC Chips M825, Socket 478 (MAT) w/ Video, Sound & Lan	\$129.99
Tyan S1854, FC-PGA & Slot 1, Via 133 Chipset (AT)	\$149.99
Tyan S2266, Socket 478, Via P4 266 Chipset (AT)	\$114.99

Premier Hard Drives & Storage

20GB UDMA/100 5400RPM EIDE Hard Drive	\$109.99
40GB UDMA/100 5400RPM EIDE Hard Drive	\$124.99
60GB UDMA/100 5400RPM EIDE Hard Drive	\$144.99
80GB UDMA/100 5400RPM EIDE Hard Drive	\$179.99
120GB UDMA/133 5400RPM EIDE Hard Drive	\$274.99
160GB UDMA/133 5400RPM EIDE Hard Drive	\$364.99
20GB UDMA/100 7200RPM EIDE Hard Drive	\$119.99
40GB UDMA/100 7200RPM EIDE Hard Drive	\$134.99
60GB UDMA/100 7200RPM EIDE Hard Drive	\$169.99
80GB UDMA/100 7200RPM EIDE Hard Drive	\$204.99
100GB UDMA/100 7200RPM EIDE Hard Drive	\$284.99
120GB UDMA/100 7200RPM EIDE Hard Drive	\$334.99
WD 120GB UDMA/100 7200RPM Hard Drive w/ 8Mb	\$364.99

Full List of Hard Drive Brands Available Online

Panasonic 1.44MB Floppy Disk Drive	\$19.99
Iomega 250Mb Zip Drive - EIDE / USB	\$109.99/\$224.99
Promise Ultra/133 T: 2 Controller Card	\$579.99
Rockwell 56K Int. w/ Voice (v.90) PCI	\$24.99
US Robotics 56K Int. (v.90) PCI	\$34.99
US Robotics 56K Int. w/ Voice (v.90) Hardware PCI	\$89.99

Premier Fax Modems

Premier Video Cards

Asus v7100Pro GeForce2 M -400 w/ 32Mb AGP	\$399.99
Asus v7700TVx GeForce2 TVx w/ 32Mb DDR AGP	\$524.99
Asus v8170/DDR GeForce 4 M -440 64MB DDR TV-Out	\$579.99
Asus v8440 GeForce 4 T 4400 w/ 128Mb DDR	\$544.99
Asus v8460 Ultra GeForce 4 Ti 4600 w/ 128Mb DDR	\$624.99
ATI part 98 w/ 8Mb SDRAM AGP/PCI	\$39.99/\$59.99
ATI Radeon 7000 w/ 32Mb SDRAM AGP w/ Video Out	\$64.99
ATI Radeon 7000 w/ 64Mb SDRAM AGP w/ Video Out	\$84.99
ATI Radeon 7500 w/ 64Mb DDR AGP w/ Video Out	\$139.99
ATI Radeon 8500LE w/ 64Mb DDR AGP w/ Video Out	\$224.99
ATI Radeon 8500 w/ 128Mb DDR AGP w/ Video Out	\$389.99
ATI All-in-Wonder Radeon 7500 w/ 64Mb AGP DDR	\$249.99
ATI All-in-Wonder Radeon 8500DV w/ 64Mb AGP DDR	\$474.99
Leadtek WinFast GeForce3 Ti200 w/ 128Mb DDR	\$324.99
Leadtek WinFast GeForce4 M -440 A170 w/ 64Mb	\$189.99
Leadtek WinFast GeForce4 A250 TD w/ 128Mb	\$149.99
Leadtek WinFast GeForce4 A250 Ultra TD w/ 128Mb	\$159.99

Full List of Video Cards Available Online

ATI TV Wonder - PCI (Not VE Version)	\$89.99
ATI TV Wonder USB -TV Tuner & Video Capture	\$124.99
Sigma Designs Hollywood+ DVD Playback Card	\$79.99

Premier Soundcards & Speakers

SoundBlaster PCI 128	\$29.99
SoundBlaster LIVE Value 5.1	\$54.99
SoundBlaster Audigy Value	\$99.99
SoundBlaster LIVE Audigy Platinum	\$274.99
SoundBlaster LIVE Audigy Platinum ex	\$344.99
SoundBlaster Extigy	\$214.99
Altec Lansing AVS-300 w/ 2 Speakers & Subwoofer	\$49.99
Altec Lansing AVS-500 w/ 4 Speakers & Subwoofer	\$64.99
Creative Inspire 2.1 2400 w/ 2 Speakers & Subwoofer	\$64.99
Creative Inspire 4.1 4400 w/ 4 Speakers & Subwoofer	\$94.99
Creative Inspire 5.1 5300 w/ 5 Speakers & Subwoofer	\$134.99
Creative Inspire 5.1 Digital 5700 w/ 5 Speakers & Subwoofer	\$394.99

Premier CD/DVD-ROM & RW Drives

Creative / Sony 52 CD-Drive (7.8MB/Sec)	\$49.99
Pioneer / Sony / Toshiba 16 DVD-ROM Drives	\$84.99
Plextor Plextwriter CD-Rewriter (24x/10x/40x)	\$204.99
Plextor Plextwriter CD-Rewriter (40x/12x/40x)	\$234.99
Panasonic CD-Rewriter w/ Burn-Proof (24x/10x/40x)	\$124.99
Sony CD-Rewriter w/ Burn-Proof (24x/10x/40x)	\$129.99
Tec 540E CD-Rewriter (40x/12x/48x)	\$179.99
Pioneer DVR-A04(DVD-R/RW & CD-R/RW)	\$324.99

Premier Networks

Smartlink 10/100Mbit Ethernet Card	\$14.99
D-Link 10/100Mbit Ethernet Card	\$24.99
3COM 10/100Mbit Ethernet Card w/ Wake on Lan	\$54.99
Linksys 10/100 Ethernet USB Adapter	\$29.99

Cables, Ends and Adapters are also available

Smartlink 10/100Mbit - 5 Port Hub	\$59.99
Linksys BEFSR11 Cable/DSL Router - 1 Port	\$109.99
Linksys BEFSR41 Cable/DSL Router - 4 Port	\$139.99
SMC Barracade Cable/DSL Router - 4 Port	\$139.99

Premier Cases

Mid Tower Case w/ 6 Drive Bays (AT) 250W	\$44.99
Premium Mid Tower Case w/ 6 Bays (AT) 300W	\$74.99
Enlight Desktop Tower Case w/ 7 Bays (AT)	\$64.99
Enlight Mid Tower Case w/ 7 Bays (AT)	\$59.99
Enlight Mid Tower Case w/ 7 Bays (AT) 300W	\$99.99
Magic Tower Case w/ 9 Drive Bays (AT) 300W	\$124.99
Mirror Mini Server Case w/ 11 Drive Bays (AT) 300W	\$114.99
Nikao Tower Case w/ 7 Drive Bays (AT) 300W	\$114.99
Open Full Tower Case w/ 13 Bays (AT) 300W	\$134.99

250W - 450W Power Supplies Available - Pricing Online

Heroic action for would-be heroes

By WILLIAM A. WOOD

Wham! Zap! Kapow! *Freedom Force* is a stupendous squad-based simulation of colossal comic-book capers!

This "pause-able real-time" superhero game is a rock-solid effort that's got almost everything a gamer could want – a spellbinding story, gripping gameplay and tremendous heart – and, best of all, no bugs (which is definitely a superheroic feat these days)!

The game takes place in 1962. An alien plot of perilous proportions has caused the random release of a strange substance, Energy X, among the peaceful citizens of Patriot City, U.S.A. The result? Various individuals now possess super powers! Needless to say, heroes emerge to use their new abilities for good, while villains quickly exploit them for evil.

The game is a gorgeous recreation of classic 1960s-style comic books (think Jack Kirby) with a dash of the Adam West *Batman* television show thrown in.

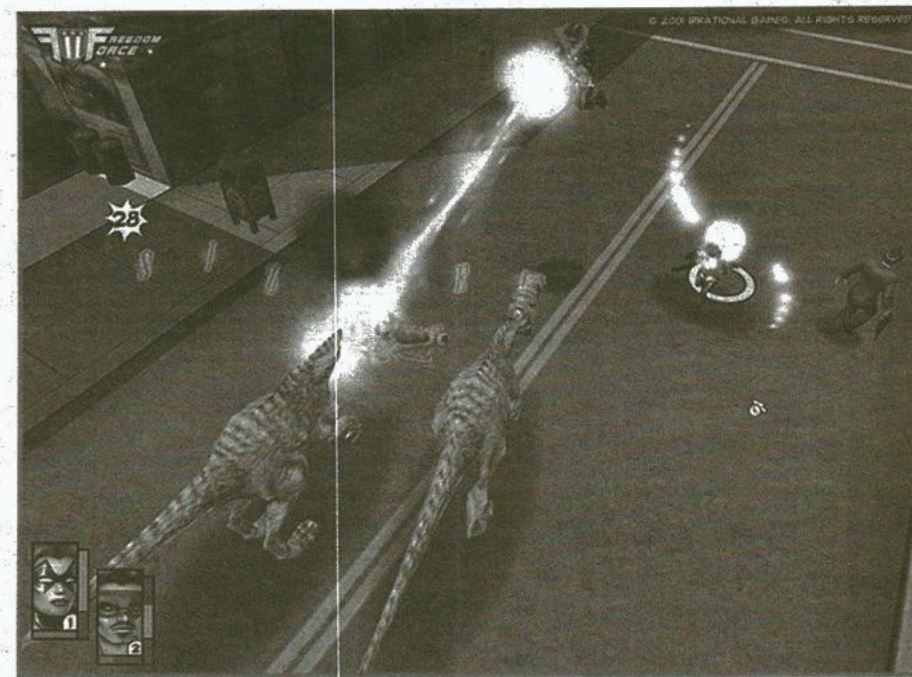
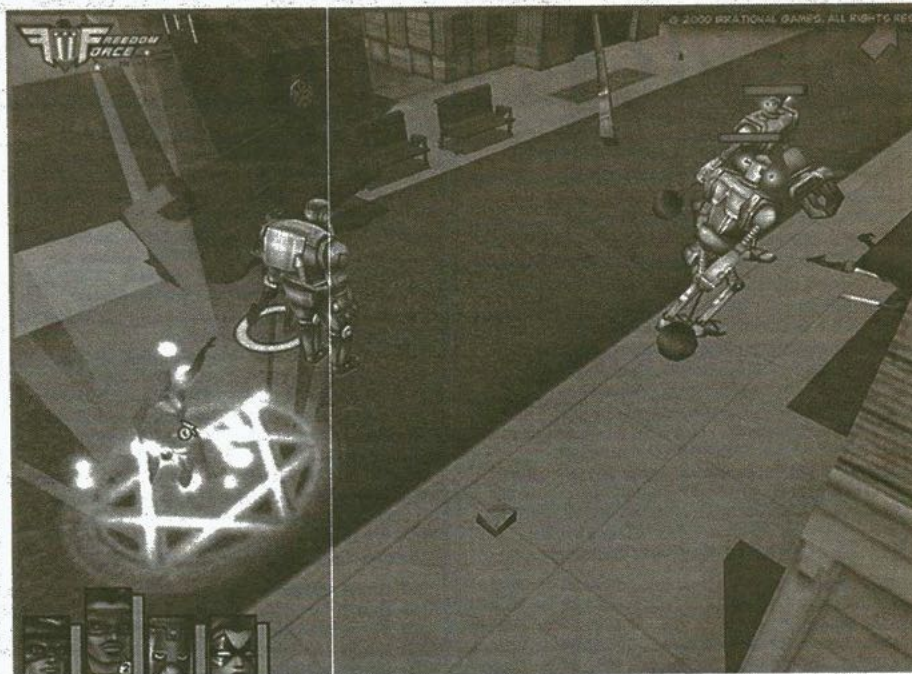
The dialogue is vintage, complete with tirades against the dastardly "commies" and "gee willikers" interjections.

"For freedom!"

Starting with Minuteman, a Captain America-esque good guy with a ready fist and a fine collection of patriotic catch-phrases ("Right makes might!"), you slowly assemble a group of heroes to form Freedom Force. The fiery El Diablo, the lovely Alche-miss, the tortured Man-Bot, the mysterious Mentor and many more will join your crusade. And as the game progresses, they will gather experience to unlock additional powers.

The bad guys range from aliens and giant robots to dinosaurs and gangsters – not to mention the supervillains, such as Pinstripe, the Shadow and Nuclear Winter. And behind it all, a sinister force that controls time itself is hatching a deadly scheme.

Controlling your heroes couldn't be easier. Using a mouse and hotkeys, you



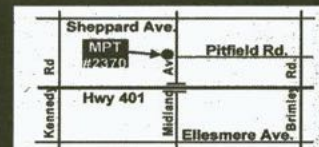
MPT

2370 MIDLAND Ave. Unit A10, Scarborough, ON, M1S 5C6

TEL: 416-292-0533 hours: 10am-7pm Mon-Fri, 10am-5pm Sat

DIRECTIONS FROM Hwy 401:

Kennedy Rd. NORTH - Sheppard Ave. EAST - Midland Ave. SOUTH to #2370 (1st traffic light). Turn RIGHT at lights into the hidden plaza #2370



MAXTOR 20GB 7200RPM ATA-133 IDE HARD DRIVE, \$109
HARMAN KARDON AMP. SPEAKERS, AMAZING SOUND, \$22
128MB PC-133 NOTEBOOK RAM, 144PIN SODIMM, \$77
ATI ALL IN WONDER RADEON 7500 AGP 64MB VIDEO, \$259
PCI 10/100 SOHO ETHERNET NETWORK CARD, \$14
17" SVGA REFURB MONITOR, EXCELLENT CONDITION, \$129
COMPAQ LG 40X IDE CD-ROM, READS CDR/W DISCS, \$39

PCMCIA NOTEBOOK NETWORK CARD, 10MBIT RJ-45, \$22
20" SVGA REFURB MONITOR, EXCELLENT CONDITION, \$229
64MB PC-100 SDRAM 168PIN RAM, LTD QTY ONLY, \$18
CD-R DISC 80MIN 700MB, SPINDLE OF 100 PIECES, \$39
21" SVGA REFURB MONITOR, EXCELLENT CONDITION, \$269
10/100 USB EXTERNAL ETHERNET NETWORK CARD, \$22
WIRELESS DESKTOP INTERNET KEYBOARD & MOUSE, \$59

www.mptcomputers.com

for latest component and system pricing, or drop by and pick up a pricelist. Prices are cash discounted and subject to change. 11 years in business, member of the BBB. Reputation built on service and prices. We offer no risk no hassle 100% REFUNDS on our products. PRICES SHOWN IN THIS AD ARE GOOD WHILE QUANTITIES LAST.

21793214

can unleash all your powers to clobber the bad guys and save the day. Much like with *Baldur's Gate*, you can pause the action at any time to issue orders. Each mission will allow you to choose up to four heroes from your roster (which can reach a dozen or more). There are over 20 missions.

Successfully thwarting the evildoers will gain your team prestige. This prestige can be used to hire freelance heroes, including custom heroes you can build from scratch. The character creation system is a lot of fun and easy to use with a large assortment of ready-to-use powers and a fabulous "create your own" system. You have to be careful not to make your caped crusaders too powerful, though, or it may take *Freedom Force* a long time to earn enough prestige to afford them.

Smash it up

The game environment is "fully destructible." That means heroes can toss cars, smash trees and bring down buildings — even rip out lampposts and batter the bad guys into submission. On the other hand, this also means that wanton use of energy beams or other dangerous powers can damage private property, which can cost you prestige.

The squeamish will be happy to know that the violence is pure comic book; everyone is "KO'd," never killed (even if they get knocked off a tall building or stomped by a dinosaur). And there's no blood.

The objectives aren't entirely clear in a few of the earlier missions, and the game lacks a "free-for-all" skirmish mode (which has apparently been promised in a future patch).

But those are trivial complaints. The variety of heroes (pre-built and custom) allows the game to be replayed many times with entirely different tactics. And up to four players can duke it out in multiplayer.

For anyone with a heroic urge, this game is the best sidekick you could hope for. Highly recommended. ♦

more INFO

Freedom Force
\$59.99
Irrational Games, Crave
Entertainment, and Electronic Arts
www.myfreedomforce.com

Minimum requirements:
Windows 98/2000/ME/XP
300 MHz Pentium II (600 MHz PIII recommended)
96 MB RAM (128 MB rec.)
DirectX 8.1 or higher
16 MB Direct 3D capable video card (32 MB recommended)
DirectX 8.1 compliant sound card
4X CD-ROM drive
570 MB free hard-drive space

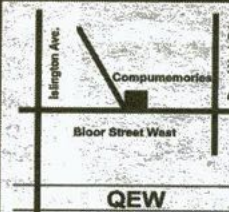


Twelve Years In Business!

Compumemories

Over 40,000 items on our Web site. Check this out !!!

http://www.compumemories.com



Etobicoke Location: e-mail: stan@compumemories.com

Mississauga Location: e-mail: andrew@compumemories.com

3088 Bloor St. West Etobicoke, On M8X 1C8

848 Burnhamthorpe Rd. West #3-B Mississauga, On L5C 2S3

Tel: (416) 232-2777 Fax: (416) 232-2401

Tel: (905) 896-7770 Fax: (905) 896-7776

Computer Repairs, Upgrades and Trade in's, can be installed while you wait **WE DO VIRUS REMOVAL SERVICE, We sell new and used systems**

Upgrade to: Pentium® 4 or AMD XP Memory, Hard Drives and other components upgrade.

Sample Systems	VIA 1Giga Pro CPU	AMD T-Bird XP 1600+	AMD T-Bird XP 1800+	Intel Pentium® 4 1.6GHz	Intel Pentium® 4 1.8GHz
MEMORY	Memory 128MB	Memory 256MB	Memory 256MB	Memory 256MB	Memory 512MB
EIDE HARD DRIVE	20GB EIDE	40GB EIDE	40GB EIDE	40GB EIDE	40GB EIDE
PRICE	\$559	\$729	\$799	\$829	\$979

All systems include: SVGA video card, 52X CD, 104 keyboard, mouse, 1.44MB fdd, mid tower case, 300W power supply, 2 serial, 1 paral. sound card, enhanced IDE controller, 56K modem & Ethernet 10/100, 2 USB ports. Pentium® is a registered trademark of Intel Corp.

- www.compumemories.com
- over 40,000 items on our web site. Check this out! Some unbelievable prices!
- #1 service/repair/upgrade/troubleshoot DEPOT in Toronto (fix or upgrade, don't buy a new one).
- We install while u wait.
- Virus cleaning service.

Please call for used, new, & refurbished notebooks, computers & printers



preloaded with tons of free Linux software!
A savings of \$700 or more on the software itself.

Memory SDRAM,DDR....

Please, check our site

S-Drain DIMM 256MB PC133MHz...109
S-Drain DIMM 128MB PC133MHz...59
256MB DDR PC2100-266...119
256MB DDR PC2700-333...call
S-Drain, ECC, DDR, RAMBUS...call
72pin Standard SIMM, DIMM Modules

Trade your old memory

Motherboard by

ASUS, GigaByte, MicroStar, Biostar, ECS Intel, Acer, Tyan, Houston

Virus cleaning service

Ask for details in the store

Motherboard & CPU

For latest CPU price..... check our site
1.8GHz Pentium® 4 w. motherboard...469
1.6GHz Pentium® 4 w. motherboard...399
VIA 1 Giga Pro motherboard & CPU...249
950MHz Pentium® Celeron w. motherboard...239
AMD XP Thunderbird 2000+ w mb...529
AMD XP Thunderbird 1800+ w mb...379
AMD XP Thunderbird 1600+ w mb...349
AMD K7 Thunderbird 900MHz...235
AMD Duron 850 w. Motherboard...209
Cooling fans f. Thermaltake, ARX & more
Please check our site

Hard Drives

.....please check our site

Please also see Firewire & Notebook Accessories sections

MAXTOR UDMA100 5400RPM

10.4GB UDMA100 5400RPM...109
20.4GB UDMA100 5400RPM...119
40.9GB UDMA100 5400RPM...129
61.4GB UDMA100 5400RPM...159
81.9GB UDMA100 5400RPM...199
120GB UDMA133 5400RPM...289
160GB UDMA133 5400RPM...409

MAXTOR 7200RPM UDMA 100

20GB 7200rpm, 2MB UDMA100...139
40GB 7200rpm, 2MB UDMA133...159
60GB 7200rpm, 2MB UDMA133...189
80GB 7200rpm, 2MB UDMA133...229

Western Digital.....please call

IBM EIDE & SCSI.....please call

Seagate EIDE & SCSI.....please call

10K & 15K RPM, ATA133, FireWire

Video Cards

GeForce 2, 3 and 4 video card from \$89
ASUS video cards, please check our site
ATI video cards.....please check our site
MSI MicroStar Inc please check our site
GeForce 2, 3, 4 please checkour site
ATI Radeon 7000/7200/7500/8500...call

DVD & CD ROMS

Yamaha, Plextor, Toshiba, LG

Panasonic & more check site

Panasonic DVD dvd recordable599

LG 52X CD Drive.....55
LG CDRW & DVD drive in one.....139
LG CDRW & DVD drive in one.....159
LG, Sony, Toshiba 16x DVD.....99
Pioneer, Sony 16X DVD.....119

Monitors

large selection.....please check our site
Viewsonic, TTX, Samsung, NEC, Sony
Selection of used monitors, please ask
Samsung 753DF 17" 0.20dp.....269
Samsung 955DF 19" 0.20DP.....399
TTX 17" SVGA n.i. 0.25.....249
NEC 17" SVGA black 0.25DP.....249

Scanners

large selection.....please check our site
Artec Ultima 2000 Scanner USB.....89

Laser & LED printers

for large selection please check our site
Hewlett Packard, Epson, Canon
Please ask for our refurbished printers
Hewlett Packard 1000.....379
Toner cartridges for most printers.
Memory upgrades for most printers.

Ink Jet Printers

for large selection please check our site
Epson C40UX.....89
HP Apollo 2250 dual cartridge.....89
Ink cartridges for most printers.

Fax & Modem

large selection please check our site
USR 56K hardware Fax/Modem.....79
USR 56K hardware w. voice 2976.....99
ESS 56K Fax/Modem/Voice PCI.....39
Cirrus Logic 56k ISA hardware.....69
PCMCIA 56k Fax/modem/voice.....89
USB external modem V.90.....79

Audio Cards

for large selection please check our site
Sound Blaster Audigy.....109
Sound Blaster Live 5.1 digital.....59
Sound Blaster PCI 128.....39

USB Devices & cables

for large selection please check our site
LinkSys Ethernet USB 10/100.....59
Wide selection of USB cables.....Call

Software

We support Linux systems, please ask

OEM software with Computer Only

MS Windows XP Home OEM full.....169
MS Windows XP PRO OEM.....259
Windows98-SE OEM w system only.....159
MS Windows 2000 Pro OEM.....219
MS Office XP SBE OEM.....259
Norton Works Pro OEM.....69
Norton Antivirus OEM.....49

Notebook Accessories

We do notebook repair.....call
2.5" internal HDD upgrades 10GB.....179
2.5" internal HDD upgrades 20GB.....219
2.5" internal HDD upgrades 30GB.....289
PCMCIA 56k Fax/modem/voice.....89
PCMCIA Ethernet card 10BaseT.....49

We carry Kingston Memory

Memory upgrades: notebooks

, printers, brand name comp.

Interface cards & cables

.....please check our site

Selection of internet routers.....call

Wide selection of LAVA cards.....call

Firewire or USB enclosure.....call

Logitech cordless keyboard & mouse.....99

1.44MB Fujitsu/Mitsumi fdd.....19

Ethernet PCI card 10/100.....29

Please check our site

Lava USB, Parallel, Serial, IDE, I/O card

• www.compumemories.com

over 40,000 items on

our web site. Check

this out! Some

unbelievable prices

• #1 service/repair/

upgrade /troubleshoot

DEPOT in Toronto (fix

or upgrade, don't buy

a new one)

• We install while u wait

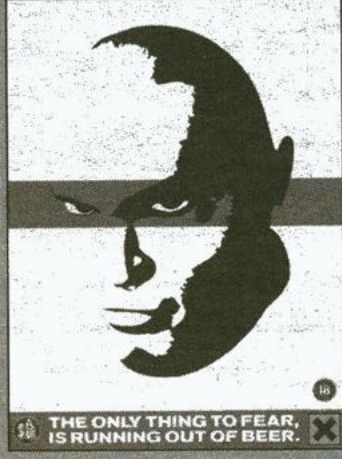
We do

Virus cleaning service

All prices are already cash discounted. Availability/Specs/Pricing subject to change without notice. TIT06

Breaking the law in Hooligans: Storm Over Europe

HOOIGANS
STORM OVER EUROPE



By CHRIS TALBOT

Drink beer. Do drugs. Steal. Get laid. Fight. Break things. Who could ask for anything more? In *Hooligans: Storm Over Europe*, you take on the role of a group of sports fans that are travelling around Europe and going to football (read: soccer) games. However, these aren't ordinary fans – these guys are drunken thugs on a rampage.

Released by Amsterdam-based DarXabre, *Hooligans* is an isometric perspective-based real-time strategy game in which players smash, loot and vandalize cities all over Europe while trying to get into football stadiums. Easy to install, the game's controls are simple and similar to those found in the *Age of Empires* series (left-click to select units, right-click to issue commands).

A word of warning: *Hooligans* is a politically incorrect game of beer-swilling maniacs. The characters in the game break all kinds of laws, including (but not limited to) robbery, assault, murder and vandalism. Ordinarily, a warning like this wouldn't be necessary in a *Toronto Computes!* review because most computer games these days carry an ESRB rating that will give buyers an idea of the age range appropriate for games. *Hooligans*, however, has not been rated by the Entertainment

Software Rating Board. The European 18 rating the game sports is a Mature ESRB rating equivalent.

Hooligan "armies" contain six hard-core units – leader (the heads of the gangs), rat (break and enter specialist), raver (drug-addicted party animal), hooligan (ski mask-wearing demolitions expert), biker (driver) and bulch (tough brawler). During play, your gang will also likely attract supporters – drunks who don't care about anything but getting rowdy (buy them a beer and you have new friends). Suits (that briefcase is more than it appears to be) and chicks (flirt with these escorts in brothels) can also be recruited.

Innocents mind their own business, spend money in shops (that you can later steal) and run like the wind from rioting hooligans. Your enemies are cops, the riot squad and other gangs that will gladly get into a scrap with your hoodlums.

Parents of younger gamers will likely find the content in *Hooligans: Storm Over Europe* to be highly offensive, but older gamers with a warped sense of humour probably won't be able to stop laughing long enough to take this game seriously. The introduction segment alone is hilarious: A TV news show starts and a reporter starts talking about football hooligans. Throughout footage of

hooligans drinking beer and looking tough, you learn more about the gang leaders you are about to start controlling.

A game with this many controversial things belongs in gaming collections that sport titles like *Grand Theft Auto III* (PlayStation 2, but soon to be released for the PC) and *State Of Emergency* (also for PS2).

A multiplayer option is available, but there is no central server that allows *Hooligans* players to connect to play. To go head-to-head with other players, you'll have to find other players with the game, set up one game as a server, figure out everybody's IP address and then instruct the game to connect everybody. This is the game's biggest flaw – a flaw that kept us from testing the multiplayer option. ♦

more INFO

Hooligans: Storm Over Europe
\$48.72 (converted from EURO 34.99)
DarXabre
www.hooligans-thegame.com
Not rated by the ESRB, but Mature equivalent

Requirements:
Windows 95/98/ME/2000/XP
Pentium II 300 MHz processor
300 MB of hard disk space
64 MB of RAM
16-bit DirectX-compatible soundcard
DirectX 8.0-compatible 4 MB video card
4x CD-ROM drive

DyTech computers (Retail)
EverChannel (Wholesale)
Mon – Fri :11:30 – 7:30; Sat & Sun :10 – 5

Richmond Hill:
#103, 550 Hwy 7 East
Tel : (905) 709-5799
Wednesday: Closed
Leslie Hwy 7 E.

Scarborough:
2931 Lawrence East
Tel : (416) 269-7738
Wednesday: Closed
Lawrence Brimley

North York:
789 Lawrence West
Tel : (416) 781-7738
Tuesday: Closed
Lawrence Dufferin

For more saving & options, check daily updated www.DytechComputers.com

T-Bird 950 \$499 T-Bird 1.3G \$539 AthlonXP1700 \$579 ECS K7S5A Board(266Mhz) 128M DDR / 256M SD(+\$29) ECS 32M AGP Video 20G HDD / 1.44M FDD ATX 300W Case / CDROM 56K Fax Modem Sound & Lan on board Compaq Internet Keyboard PS/2 Scroll Mouse 180W Speaker	Intel P4 1.6G \$629 Intel P4 1.7G \$669 Intel P4 1.8G \$719 ECS P4S5A Mainboard 128M DDR / 256M SD(+\$29) ECS 32M AGP Video 20G HDD / 1.44M FDD ATX 300W Case / CDROM 56K Fax Modem Sound & Lan on board Compaq Internet KeyBoard PS/2 Scroll Mouse 180W Speaker	Intel P4 1.6G \$669 Intel P4 1.7G \$709 Intel P4 1.8G \$759 Asus P4S-333-M Board 128M DDR RAM ECS 32M AGP Video 20G 7200r HDD / 1.44M FDD ATX 300W Case / CDROM 56K Fax Modem Sound & Lan on board Compaq Internet KeyBoard PS/2 Scroll Mouse 180W Speaker	Special Duron 850 \$429 T-bird 950 \$459 T-bird 1.3G \$499 AthlonXP-1600 \$529 Chaintech Motherboard 128M SDRAM PC133 ECS 32M AGP VIDEO 20G Hard Drive / 1.44M FDD ATX 300W Case / CDROM 56K Fax Modem Sound on board / Speaker Internet Keyboard / Mouse	Intel P4 1.3G \$709 Intel P4 1.7G \$799 Intel P4 1.8G \$859 Gigabyte P4 Mainboard 128MB RDRAM Pc800 Savage 2K 64M TVout AGP 40G 7200r HD / 1.44M FDD P4 300W Case / CDROM 56K Fax Modem On Board Sound PS/2 Scroll Mouse Compaq Internet Keyboard Altec Lansing Speaker	Intel P4 1.3G \$749 Intel P4 1.7G \$839 Intel P4 1.8G \$899 Asus P4T Main Board 128MB RDRAM PC800 Savage 2K 64M TVout AGP 40G 7200r HD / 1.44M FDD P4 300W Case / CDROM USR 56K Fax Modem SoundBlaster Live Value PS/2 Scroll mouse Compaq Internet Keyboard Altec Lansing Speaker	Intel P4-1.6 \$969 Intel P4-1.7 \$1009 Intel P4-1.8 \$1059 Asus P4T-E Mainboard 256M RDRAM Pc800 Savage 2K 64M TVout AGP 40G 7200r HDD / 1.44M FDD P4 300W Case / CDROM USR 56K Fax Modem SoundBlaster Live Value PS/2 Scroll mouse Compaq Internet Keyboard Altec Lansing Speaker
Upgrade Combo \$329 AMD XP-1600 CPU+ Motherboard + 256M SDRAM + CPU Cooling Fan	Logitech Devices Cordless mouse \$19.99 Optical Mouse \$19.99 QuickCam \$29.99	ECS Laptop 1GProCPU 14.1" TFT 10G HD Lan / Modem / 4 USB Plus 128M / CDR \$989 or 256M / CDR \$1029 or 256M / DVD \$1089 ***** 15" TFT / 20G / DVD / LAN 256M DDR / Modem / USB Plus Intel P4-1.6G \$1679 or Intel P4-1.8G \$1769	T-Bird 950 \$549 Athlon Xp1600 \$619 Athlon Xp1800 \$649 Asus A7A133 MotherBoard 128M SDRAM ECS 32M AGPVideo Card 20G HardDrive 1.44M FloppyDrive ATX 300W Case / CDROM 56K Fax Modem SoundBlaster PCI 128 Compaq Internet KeyBoard PS/2 Scroll Mouse 180W Speaker	Athlon Xp1700 \$809 Athlon Xp1800 \$829 Athlon Xp1900 \$879 Asus A7V266-E Mainboard 256M DDR RAM Pc2100 Savage 2K 64M TVout AGP 40G 7200r HardDrive 1.44M Floppy Drive ATX 300W Case / CDROM USR 56K Fax Modem On Board Sound Compaq Internet KeyBoard PS/2 Scroll mouse Altec Lansing Speaker	Intel P4-1.6 \$879 Intel P4-1.7 \$919 Intel P4-1.8 \$969 Asus P4B266C Mainboard 256M DDR RAM Pc2100 Savage 2K 64M TVout AGP 40G 7200r HardDrive 1.44M FloppyDrive ATX P4 Case / CDROM USR 56K Fax Modem SoundBlaster Live Value Compaq Internet KeyBoard PS/2 Scroll mouse Altec Lansing Speaker	
Monitors 17" Refurbished.....139 17" Samsung 750S.....205 17" Samsung 753DF.....239 19" Samsung 955DF.....389 17" KDS vs7i.....195 19" KDS vs190.....299 19" KDS Flat339 Fax Modem 56K USR (Win).....30 56K Conexant (Win)..19	DVD & CDRW LG 24"10"40.....135 LG CDRW+DVD.....139 Generic 16X DVD.....89 Samsung 16XDVD.....99 Video Cards Savage2K 64MTvout...69 Geforce2 mx200 64M..79 (with TV out..... \$89) Geforce2 mx400 64M..89 (with TV out... \$99)	Hard Drives 5400 RPM: 20G / 40G.....\$109 / 129 7200 RPM: 20 / 40 / 60 / 80G .. \$ 125 / 139 / 189 / 239 Network Card Generic / D-link.....\$10/18 PCMCIA NIC.....\$49.99 USB 10/100.....\$39.99				

**** All prices have been 4% cash discounted and are subject to change without notice ****

TORONTO COMPUTES! MAY 2002 canadacomputes.com



Scarborough
 Sheppard Ave. East
 4810 Sheppard Ave. East, Unit 224
 Tel: (416) 609-1668
 Phone options: 1. Retail Sales
 2. Corporate Sales 3. Tech. Support
 Fax: (416) 609-8860
 Email: scarborough@throne.com
 Hours: Mon-Sat: 10am - 6pm
 Sunday: Closed

11 years in business: Best Prices, Quality & Service

THRONE COMPUTER

See our up-to-date prices at: www.throne.com



MOMENTUM 2511

Intel® Pentium® 4 Processor 2.4 GHz
 Intel® D850ML Pentium® 4 motherboard
 Build-in 10/100BT LAN, 256MB PC800 RDRAM
 NEC AS95F 17" .25 monitor
 ATI Radeon 7000 64MB SDRAM AGP 4X Video
 Maxtor 60GB 7200rpm 2M cache hard drive
 In-Win™ Medium Tower Case with 300W PS
 LG 32X10X40 IDE CD-Rewriter, 1.44M Floppy
 SB Live! 5.1 sound, Altec Lansing AVS500W Speaker
 MS® Cordless Desktop (keyboard+mouse)
 MS® Windows XP Professional, with CD & Manual

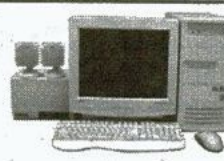
\$2849 NEC 1550V LCD Display Add \$230
 512MB PC800 RDRAM Add \$160



e-Station 2512

Intel® Pentium® 4 Processor 1.6 GHz
 Intel® D845HVL Pentium® 4 motherboard
 Build-in 10/100BT LAN, 256MB PC133 SDRAM
 NEC AS70 17" .27 monitor
 ATI Xpert2000 Pro 32MB AGP 4X Video card
 Maxtor 40GB 7200rpm 2M cache HD
 Medium Tower Case with 300W Power Supply
 LG IDE 32X10X40 CD-Rewriter, 1.44M Floppy drive
 SoundMax 2.0 with Altec Lansing AVS300W Speaker
 Keytronic 104 keys keyboard, Logitech Wheel mouse
 MS® Windows XP Home, with CD & Manual

\$1449 Intel® Pentium® 4 Processor 1.8A GHz Add \$105
 Intel® Pentium® 4 Processor 2A GHz Add \$260



Box System 2518

Intel® Pentium® 4 Processor 1.6 GHz
 Intel® D845HV Pentium® 4 motherboard
 256MB PC133 SDRAM
 ATI Xpert2000 Pro 32MB AGP 4X Video card
 Maxtor 20GB 7200rpm hard drive
 Medium Tower with 300W Power Supply
 SoundMax 2.0 sound chip
 LG 52X CD-ROM
 Panasonic 1.44M Floppy drive

\$869 Intel® Pentium® 4 Processor 1.8AGHz Add \$105
 Intel® Pentium® 4 Processor 2A GHz Add \$260



e-Station 2514

Intel® Celeron® Processor 1.0 GHz
 Intel® D815EGEWUL motherboard
 128MB PC133 SDRAM, Intel Graphic, LAN
 NEC AS70 17" .27 monitor
 Maxtor 20GB 7200rpm 2M cache HD
 Medium Tower Case with 250W Power Supply
 LG 52X CD-ROM, 1.44M Floppy drive
 SoundMax 2.0 with Amplified Speaker
 Acer 104 keys keyboard, Logitech Wheel mouse
 MS® Windows XP Home, with CD & Manual

\$1039 Intel® Celeron® Processor 1.2GHz Add \$30
 Intel® Pentium® III Processor 1.13GHz Add \$135



Box Upgrade 2515

Intel® Pentium® 4 Processor 1.6 GHz
 Intel® D845HV Pentium® 4 Motherboard
 Medium Tower with 300W Power Supply
 256MB PC133 SDRAM
 SoundMax 2.0 Audio
 4 USB, 1 Parallel and 1 Serial Ports

\$629



Box Upgrade DDR 2516

Intel® Pentium® 4 Processor 1.6 GHz
 Intel® D845PT Pentium® 4 Motherboard
 Medium Tower with 300W Power Supply
 256M DDR PC266 Memory
 SoundMax 2.0 Audio
 4 USB, 1 Parallel and 1 Serial Ports

\$669



Box Upgrade 2517

Intel® Celeron® Processor 1.0 GHz
 ASUS CUSI-FX Pentium® III Motherboard
 Mini Tower with 250W Power Supply
 128MB PC133 SDRAM
 Integrated Graphic, LAN, Audio
 2 USB, 1 Parallel and 1 Serial Ports

\$369

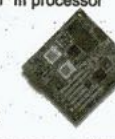


Build Your Server With Intel® Products

Intel® SAI2 Server Board \$645
 -Support Dual(2) Intel® Pentium® III processor with 512-KB L2 cache
 - 4 PC133 SDRAM sockets, up to 4 GB ECC RAM
 - Two(2) EIDE channels
 - Intel® Server Ethernet
 - Excellent Server Management



Intel® SDS2 Server Board \$1050
 - Support Dual(2) Intel® Pentium® III processor with 512-KB L2 cache
 - 64 PC133 SDRAM sockets, up to 6 GB ECC RAM
 - Two(2) Ultra 160 channels
 - Two(2) Intel® Server Ethernet
 - Excellent Server Management



Intel® SC5100 Server Chassis \$500
 - 300W Power Supply
 - Five(5) fans total
 - A lot of drive bays
 - Front USB connection
 - Excellent Server Management
 - Optional Hot-swap U160 drive bays
 - Optional Hot-swap Redundant Power Supply



Our Business Service includes:

- File Servers: New or Upgrade
- Network Security Analysis
- On-site Data Transfers & Computer Upgrades
- Networking, High Speed Internet Sharing, add emails
- Access company data from your home via Internet
- Our Team: Intel Certified Professionals, MCPs, MCSEs

For Business Service: 416-609-1668 option 2

* All computer systems (Momentum Series, e-Station series) come with 1 year parts and 2 years labour depot warranty by Throne, include the systems unit, keyboard, mouse and speaker. All monitors and add-on items come with manufacturer's warranty. All upgrade package come with 9 months parts & labour depot warranty. 3 years limited warranty on all Intel® processors and motherboards by Intel®. All items below may be used as upgrade for the systems above. Intel, the Intel Inside Logo and Pentium are registered trademarks of Intel Corporation.
 **All Prices are already 3% discounted for cash, Money Order and Certified Cheque (pre-approve only), or Direct payment (Interac). VISA, Master Cards are on regular prices (Regular price = Cash discounted price + 3%). Government, educational institutions & corporate P.O. are welcome, shipping cost is extra. Prices are subject to change without notice. See our up-to-date prices at: www.throne.com

DRIVES & CONTROLLERS

IDE 7200 RPM, ATA/100:
 Maxtor (Quantum) 20 GB \$120
 Maxtor (Quantum) 40 GB \$135
 Maxtor (Quantum) 60 GB \$173
 Maxtor (Quantum) 80 GB \$225
 Seagate 40GB \$146
 Seagate 60GB \$195
 Seagate 80GB \$239
 WD 20 GB \$121
 WD 40 GB \$135
 WD 60 GB \$185
 WD 80 GB \$229
 WD 100 GB \$299
 WD 120 GB \$328

FIREWIRE 1394:
 Maxtor 80 GB Ext 7200rpm \$465
 Maxtor 160 GB Ext 5400rpm \$595
 LAVA Firewire IDE Enclosure \$145
 LAVA USB 2.0 IDE Enclosure \$145

SCSI 10000 RPM, Ultra 160:
 Maxtor KW018L2 18G \$309
 Maxtor KW036L4 36G \$525
 Maxtor KW073L8 73G \$1109
 Seagate ST-318406LW 18G \$315
 Seagate ST-336706LW 36.4G \$535
 Seagate ST-373405LW 73G \$1130

SCSI 15000 RPM, Ultra 160:
 Seagate ST-318452LW 18G \$425
 Seagate ST-336752LW 36G \$715

Int IDE HD ATA/100 Removable Kit \$29
 IOmega Int IDE 250M ZIP drive \$117
 Panasonic 1.44M floppy drive \$16
 Seagate Int 24G DAT drive w/ tape \$1269
 Seagate Int 40G DAT drive w/ tape \$1585

Intel® PROCESSORS

(Please call for the current price, or refer to our WEB site. All retail box include Fan & 3 yr. warranty)
 Celeron™ 900 MHz 128K \$109
 Celeron™ 950 MHz 128K \$122
 Celeron™ 1.0 GHz 256K \$122
 Celeron™ 1.1 GHz 256K \$133
 Celeron™ 1.2 GHz 256K \$149
 Celeron™ 1.3 GHz 256K \$165
 Pentium® III 1.0 GHz 256K \$255
 Pentium® III 1.1 GHz 256K \$255
 Pentium® III 1.13 GHz 512K \$325
 Pentium® III 1.2 GHz 512K \$375
 Pentium® III 1.4 GHz 512K \$589

Pentium® 4 1.7 GHz 256K \$297
 Pentium® 4 1.8 GHz 256K \$345
 Pentium® 4 1.9 GHz 256K \$395
 Pentium® 4 1.6 GHz 512K \$245
 Pentium® 4 1.8 GHz 512K \$349
 Pentium® 4 2A GHz 512K \$505
 Pentium® 4 2.2 GHz 512K \$735
 Pentium® 4 2.4 GHz 512K \$1035
 Pentium® 4 2.0 GHz 423-pin \$455

Intel® MOTHERBOARDS

D815EGEWU \$157
 D815EGEWUL \$177
 D815EPEA \$175
 D815EEA2L \$205
 D845HV Pentium® 4 \$179
 D845HVL Pentium® 4 \$199
 D845WN Pentium® 4 \$207
 D845WNL Pentium® 4 \$207
 D845PT Pentium® 4 DDR \$195
 D845PTL Pentium® 4 DDR \$209
 D845BG Pentium® 4 DDR \$229
 D845BGL Pentium® 4 DDR \$222
 D850MD Pentium® 4 \$242
 D850MDL Pentium® 4 \$232
 D850MV Pentium® 4 \$255
 D850MVL Pentium® 4 \$203
 D850GB Pentium® 4 \$242
 D850GBAL Pentium® 4 \$259
 SB15EBM1 Server Board \$645
 SAI2 Server Board \$799
 STL2 Server Board \$1050
 SDS2 Server Board \$1050

CASES with Power Supply

Med Tower 6 bays ATX 250W \$58
 P4 Med Tower 6 bays ATX 300W \$75
 P4 Med Tower ATX 300W with USB \$90
 Open Full Tower 10 bays 300W \$129
 In-Win P4 Case 300W \$102
 Rackmounts Chasis 1U 180W \$395
 Rackmounts Chasis 2U 300W \$425
 Rackmounts Chasis 4U P4 300W \$280
 ATX Power Supply 250W \$35
 ATX Power for P4 300W / 400W \$49 / 105

INPUT DEVICES

AOpen / Keytronic 104 keys KB PS2 \$13 / 15
 Logitech Wheel Mouse PS2 \$15
 MS / AOpen 2-Button PS2 Mouse \$8
 MS Wheel Optical Mouse \$27
 MS Internet Keyboard \$33
 MS Wireless Desktop (KB+Mouse) \$85
 MS Wireless IntelliMouse Exp \$89

CD / DVD / REWRITER

Creative Int IDE 52X CD-Drive \$49
 LG Int IDE 52X CD-Drive \$40
 LG Int IDE 16X DVD Drive \$77
 LG Int IDE 24 x 10 x 40 w/ software \$117
 LG Int IDE 32 x 10 x 40 w/ software \$129
 LG Int IDE 12 x 8 x 32 + 8X DVD \$179
 Pioneer Int IDE DVD-R/RW writer (retail) \$685
 Roxio EZ-CD creator V5.0 (bulk) \$18
 Blank CD-R Sony 80 min. \$1.3
 Blank CD-RW Sony 74 min. \$2.9
 Blank DVD-R / DVD-RW Sony \$20 / 33

SOUND CARD / SPEAKER

SB 16 PCI (bulk) \$26
 SB Live Dolby Digital 5.1 (bulk) \$49
 SB Audigy w/1394 (bulk) \$98
 SB Audigy Gamer / MP3+ (retail) \$139
 SB Audigy Platinum (retail) \$269
 SB Audigy Platinum External (retail) \$335
 Altec Lansing AVS200W \$27
 Altec Lansing AVS300W 3pcs \$48
 Altec Lansing AVS500W 5pcs \$69
 Lexmark T520 20 ppm 8M \$1039
 Lexmark T720 24 ppm 32M Color \$2965
 Creative Inspire 5.1 5300 \$135

MEMORY

(Please call for the current price, or refer to our WEB site)
 SDRAM 128M, 133MHz \$62
 SDRAM 256M, 133MHz \$109
 SDRAM 512M, 133MHz \$230
 SDRAM 128M, 133MHz ECC w/ Register \$115
 SDRAM 256M, 133MHz ECC w/ Register \$195
 DDR 256M, PC266 \$245
 DDR 512M, PC266 \$245
 RAMBUS 64M 800MHz \$45
 RAMBUS 128M 800MHz \$75
 RAMBUS 256M 800MHz \$155

SCANNERS / WEBCAM

D-Link DSB-C300 USB \$99
 HP ScanJet 2200C USB \$122
 HP ScanJet 4400C USB/Parallel \$153
 HP ScanJet 5470C USB/Parallel \$425
 HP ScanJet 7450C USB/SCSI \$899
 HP ScanJet 7490C USB/SCSI \$1259

INKJET PRINTERS

HP DJ 658C USB \$99
 HP DJ 845C USB \$139
 HP DJ 940CVR USB \$235
 HP DJ 990C USB \$425
 HP DJ 1220Xi USB/Parallel \$562
 HP CP1160 USB/Parallel \$559
 Lexmark Jetprinter Z22 USB \$80
 Lexmark Jetprinter Z33 USB \$93
 Lexmark Jetprinter Z53 USB \$163
 IEEE Bi-direction printer cable 6 ft \$15

LASER PRINTERS

HP 1000 10 ppm 1M \$359
 HP 1200 15 ppm 8M \$589
 HP 2200D 19 ppm 8M \$1189
 HP 4100 25 ppm 16M \$1655
 HP 4550 16 ppm 64M Color \$3195
 Lexmark E210 12 ppm 4M \$299
 Lexmark E320 16 ppm 4M \$460
 Lexmark T520 20 ppm 8M \$1039
 Lexmark T720 24 ppm 32M Color \$2965
 QMS Magicolor 2200 DeskLaser \$1655

FAX MODEMS

AOpen 56K Int V.90 w/voice PCI \$42
 AOpen 56K Ext V.90 Serial \$95
 USB 56K Int V.90 PCI HW bulk \$75
 USB 56K Ext V.92 \$159

VIDEO CARDS

ATI TV Wonder (add-on PCI) retail 99
 ASUS V7100 Pro Pure 64M \$119
 ASUS V8170 MX400 64M \$185
 ASUS V8200 T2000 Pure 64M \$228
 ASUS V8400 T4400 128M \$485
 ASUS V8460 T4600 128M \$639
 ATI Xpert 2000 Pro 4X 32M \$59
 ATI Radeon 7000 SDRAM vto 64M \$86
 ATI Radeon 7500 DDR video vto 64M retail 212
 ATI All-in-Wonder 7500 64M retail 279
 ATI All-in-Wonder 8500DV 64M retail 445
 ATI Radeon 8500LE DDR vto 128M retail 335
 ATI Radeon 8500 DDR vto 128M retail 433

MONITORS

Acer V551 15" 1024 .27 \$185
 NEC AS70 17" 1280 .27 \$215
 NEC AS75F 17" 1280 .25 \$245
 NEC AS95F 19" 1600 .25 \$375
 NEC AS125F 22" 1600 .24 \$775
 NEC LCD 1550V 15" 1024 .30 \$605
 NEC LCD 1700V 17" 1280 .26 \$959
 NEC LCD 1850E 18" 1280 .28 \$1275
 NEC LCD 2010X-P 20" 1280 .31 \$2830
 Samsung 750S 17" 1280 .24 \$215
 Samsung 753DF 17" 1280 .20 \$259
 Samsung 955DF 19" 1600 .20 \$389
 Viewsonic E70F 17" 1280 .25 \$275
 Viewsonic E90 19" 1600 .27 \$375
 Viewsonic G90F 19" 1600 .25 \$466
 Viewsonic G810 21" 1600 .25 \$849
 Viewsonic P220F 22" 1600 .25 \$1135

Software (Microsoft OEM versions must be purchased with Systems)

MS Office XP Small Business OEM \$280
 MS Office XP Professional OEM \$509
 Norton Antivirus 2002 OEM \$44
 Windows XP Professional OEM \$265

NETWORKS

D-Link PCI 10/100 BT card \$23
 3Com 3C905 10/100 BT (bulk) \$57
 3Com 3C996 1000BT Server Adapter \$288
 3Com 3C1646A 12 ports Switch \$675
 3Com 3C1646B 6 ports 1000BT Switch \$1088

Linksys

Intel® Pro/100+ PCI (bulk) \$57
 Intel® Pro/100+ SEC \$69
 Intel® Pro/100+ Server \$115
 Intel® Pro/1000T Desktop \$155
 Intel® Pro/1000 Server Adapter \$178
 Intel® PCMCIA 10/100BT RealPort \$283
 Intel® Wireless Gateway \$359
 Intel® Wireless AP + 2 PCMCIA \$1040
 Linksys BEFSR41 4 ports switch \$135
 Linksys BEFSRU31 \$176
 Linksys BEFW11S4 \$275
 Linksys Wireless PCMCIA Card \$149
 Linksys Wireless USB \$145
 Linksys Wireless PCI \$149
 Linksys Wireless Print Server \$229

Netgear

Netgear FS105 5 ports Switch \$74
 Netgear FS108 8 ports Switch \$115
 Netgear FS116 16 ports Switch \$232
 Netgear 10/100BT 2 ports Print Server \$179
 10/100 BaseT (RJ45, 8 wire) Jack \$1.5
 Ethernet Cable RG58/10/100 BT .022ft \$6 / 8 / 12
 RJ45 key jack module for wall plate \$5.5
 Wall plate (1/2x4/6 holes) \$2.2

Uninterruptible Power Supply (UPS)

APC - American Power Conversion
 Personal 7 Outlet w/Modem \$35
 Backup-UPS 350 \$139
 Backup-UPS 500 \$189
 Backup-UPS Pro 500UC \$229
 Backup-UPS Pro 1000 \$549
 Backup-UPS Pro 1400 \$699
 Smart-UPS 700Net w/ Software \$519
 Smart-UPS 1000 USB / RS232 \$739
 Smart-UPS 1500 USB / RS232 \$985
 Smart-UPS Rackmount 2U 1000 \$879

Gothic introduces a strange, new world

By CHRIS TALBOT

Not exactly a role-playing game (RPG) and not quite an action-adventure, Xicat Interactive's *Gothic* takes elements from the *Tomb Raider*-esque third-person adventure games and traditional RPGs. In the end, what has been created is a technically flawed game with an interesting and dynamic story.

In *Gothic*, players take the role of an unnamed prisoner in a dark fantasy world where a king has imprisoned all men guilty of crimes in a mine surrounded by a magical barrier (you can go in but can't get out). Unfortunately, the wizards creating the barrier were trapped inside and, shortly after the barrier went up, the prisoners took control of the camp.

On the outside, the kingdom is warring with an army of orcs and the king's army is in need of iron ore. The prisoners were originally to be locked up to mine the ore as punishment, but now that they control the mine, they are bartering supplies and necessities for ore.

The main character's crimes are not detailed. When the game begins, you just know you're a convict about to be

sent into the mines. Just before they thrust the hero in, an emissary (supposedly from the king) hands him a letter and asks him to take it to the Wizards of Fire. In return, he can demand anything as his reward. The game begins with the character being thrown into the mines.

The first character the hero meets is a man named Diego, who saves the hero from a beating by a brute squad. Diego also promises to help you get into the Old Camp, one of three political factions this side of the barrier (the other two being the New Camp and the Brotherhood of the Sleeper).

As in many RPGs, the dialogue is bad. Almost everybody the hero meets refers to him as "Hey, you!" The graphics in the game are decent. There was obviously an attempt to create a visually-interesting world, but the backgrounds seem to fade in and out depending on how the hero is standing. The coolest thing about the graphics is the ominous magical barrier that looms overhead throughout the game. It crackles with a blue energy reminiscent of lightning.

From a technical aspect, the gameplay is flawed. Equipping weapons took some effort at first. The manual is so slim and

poorly written that it is only of little help. There are not a lot of commands to memorize, and once you've got them down pat, the manual becomes useless, anyway.

Gothic's biggest downfall is in its combat. Commands are keyboard-driven. To move, you use the arrow keys. To attack, you hold down the CTRL button while hitting the arrow keys. This means that you cannot attack and move at the same time. The attack commands are also unresponsive. This is a pity because enemies in the game don't seem to have this problem. And enemies are deadly.

I found some difficulty with the item menus. They were unreadable much of the time I was trying to use them.

Another flaw I found was that when asking questions of other characters, they often start to answer the question before the hero has even finished posing it. This creates a jumble of sounds while two characters talk at once.

If you can tolerate the technical flaws,



Gothic is worth playing. The story is dynamic. You can choose which political faction you wish to belong to, accept or refuse small quests and explore this strange and interesting world. ♦

more INFO

Gothic
\$39.99
Xicat Interactive
www.xicat.com

Requirements:
Windows 98/2000/ME/XP
Pentium II 400 Mhz processor
128 MB of RAM
16 MB 3-D video card
4x CD-ROM
700 MB of hard disk space
DirectX-compatible video card
DirectX-compatible soundcard



Bright Oceans Inter-Telecom Corporation Canada Branch

Address: 2022 Sheppard Ave. East (at Sheppard & Brian Dr.)

Tel: (416) 493-3300

KEIT Computers

We promise if any part has a problem in warranty we will exchange it with a new one (except physically damaged) 1 year warranty on hardware, 3 years labor on system.

Intel Celeron 1G	\$419	Intel P4 1.6G	\$609	Intel P4 1.6G	\$879	Intel P4 1.6G	\$889	Intel P4 1.6G	\$949
Celeron 1.1G/1.2G/1.3G	\$429/439/449	P4-1.7G/1.8G/1.9G	\$649/689/749	P4-1.7G/1.8G/1.9G	\$829/869/929	P4-1.7G/1.8G/1.9G	\$929/969/1029	P4-1.7G/1.8G/1.9G	\$989/1029/1089
Duron 800/900/950/1G	\$399/409/414/429	P4-2G/2.2G/2.4G	\$809/1039/1299	P4-2G/2.2G/2.4G	\$989/1219/1479	P4-2G/2.2G/2.4G	\$1079/1309/1569	P4-2G/2.2G/2.4G	\$1089/1319/1579
TR 950/1.1G/1.3/1.4	\$439/469/479/509	ECS P4VXASD2 MB		ECS P4VXASD2 MB		ASUS P4B MB		ASUS P4B333-M MB	
Houston M756 MB or M810		128MB PC-133 SD RAM		256MB PC-133 SD RAM		256MB PC-133 SD RAM		256MB PC-2700 (333) DDR RAM	
128MB PC-133 SDRAM		Riva TNT2 32M 4X AGP		Riva TNT2 32M 4X AGP		ATI Radeon 64M tv out		ATI Radeon 64M tv out	
64M VIDEO sharded & 56K Modem		40GB HDD & 1.44M FD & 56K Modem		40GB HDD & 1.44M FD & 56K Modem		40GB HD & 1.44M FD		40GB HD & 1.44M FD & 56K Modem	
20GB HDD ATA100 & 1.44M FD		52X CD-ROM & 180W SPK		16X DVD & 24x10x40 CDRW		16X DVD & 24x10x40 CDRW		16X DVD & 24x10x40 CDRW	
52X CD-ROM & 180W SPK		16BIT SOUND & Network card		16 BIT SOUND & Network card		P4 CASE & 500W subwoofer		P4 CASE & 500W subwoofer	
ATX MID TOWER CASE 300W		109 Win98 KB & MOUSE & Pad		ATX TOWER CASE 300W & 180W SPK		16 bit Sound & 56K Modem		Sound Blaster Live 5.1	
109 Win98 KB & MOUSE & Pad		change Mainboard to ASUS P4B.....	+60.00	109 Win98 KB & MOUSE & Pad		Internet KB & Wheel Mouse & Pad		Internet KB & Wheel Mouse & Pad	
change Mainboard to ASUS P4B.....				change SDRAM to DDRAM.....	+520	change SDRAM to 512M.....	+5100	change Mainboard to ASUS P4B333.....	+34
AMD TB 950	\$489	AMD TB 1.333G	\$589	AMD XP 1800	\$789	AMD XP 1800	\$929	AMD XP 1800	\$959
TR 1.333G/XP1600/XP1700	\$519/549/559	TR 950G/XP1600/XP1700	\$559/619/629	TR 950G/XP1600/XP1700	\$689/719/749	TR 950G/XP1600/XP1700	\$829/859/889	TR 950G/XP1600/XP1700	\$859/889/919
XP1800/1900/2000/2100	\$589/629/759/829	XP1800/1900/2000/2100	\$659/699/829/969	XP1700/1900/2000/2100	\$759/829/959/1099	XP1700/1800/2000/2100	\$899/1049/1129/1239	XP1700/1800/2000/2100	\$929/1079/1159/1269
Duron 800/900/950/1G	\$459/469/479/489	ASUS A7N266-CMB		ECS K755A MB		ASUS A7V266-E MB (new chipset VIA KT266A)		ASUS A7V333 MB (with new USB 2.0)	
ECS K755A MB		128MB PC-2100 DDR RAM		256MB PC-133 SDRAM		256MB PC-2100 DDR RAM		256MB PC-2700 (333) DDR RAM	
128MB PC-133 sdr & 180W SPK		RIVA TNT2 32M 4X AGP		ATI Radeon 64M tv out		ATI Radeon 64M tv out		ATI Radeon 64M tv out	
Riva TNT2 32M AGP & 1.44M FD		20GB ATA100 & 1.44M FD		40GB ATA100 & 1.44M FFD		40GB ATA100 & 1.44M FFD		40GB ATA100 & 1.44M FFD	
20GB HDD ATA 100 & 52X CD-ROM		52X CD-ROM & 180W SPK		16X DVD & 24X10X40 CDRW		16X DVD & 24X10X40 CDRW		16X DVD & 24X10X40 CDRW	
16Bit Sound card & Network Card		56K MODEM pci & 16 bit sound		16 BIT Sound Card & Network Card		16 bit sound & 56K Modem		16 bit sound & 56K Modem	
ATX MID TOWER CASE 300W		ATX CASE 300W & 180W SPK		56K Voice FAX-MODEM		ATX CASE 300W & 500W subwoofer		ATX CASE 300W & 500W subwoofer	
109 Win98 KB & Mouse & Pad		109 Win98 KB & Mouse & Pad		ATX CASE 300W & 180W SPK		Internet KB & Wheel Mouse & Pad		Internet KB & Wheel Mouse & Pad	
change Mainboard to ASUS A7V133.....	+90	change mainboard to ASUS A7A266.....	+20	change SDRAM to DDRAM.....	+20	change Mainboard to with RAID one.....	+40	change Mainboard to with RAID one.....	+40
MONITOR		*HARD DRIVE*		*VIDEO CARD*		*MAIN BOARD*		*MAIN BOARD*	
15" NEC 1550V/17" NEC1700	559/969	MAXTOR		ATI tv wonder/DV/usb	85/64/120	Socket 370 (P3,Celeron)		Socket A	
15" Samsung 151S white/silver	559/569	20GB 5400rpm/7200rpm	94/110	Nvidia Riva TNT2 32M 4xAGP	48	ASUS TUV4X/TUSL2C	111/127	MSI 6300 K7T turbo-limited-Raid	112
17" Samsung 171S white/silver	979/999	40GB 5400rpm/7200rpm	108/124	ATI Xpert128 16M PCI retail	64	ASUS TUSI-M(vga,audio,lan)	91	MSI 6380E ultra/raid	155/206
18" NEC 1850E	1199	60GB 5400rpm/7200rpm	139/150	ATI Xpert2000 32M PRO	49	Houston 758(vga,audio,modem,lan)	89	MSI 6373 K7N420pro,(G2 vga,i,a)	210
17" Aquaview 7GS	169	80GB 5400rpm/7200rpm	173/189	ATI All-in-w Radeon 7500 / retail	237/250	MSI 6309/6337	106/149	ABIT KR7/raid	166/194
17" LG 700S/E700B	185/222	120GB / 160GB 5400rpm	270/385	ATI All-in-w Radeon 8500 DVI	488	Socket 478 (P4)		ABIT KG7	159
17" Samsung 750S/ 753DF	195/223	SEAGATE		ATI Radeon 7000 32M sdr /retail	59/100	Asus P4B(sdr)/ P4T-E(rd)	165/233	ABIT KC7A-133R raid	269
17" Samsung 700NF	325	40GB 5400rpm/7200rpm	108/122	ATI Radeon 7000 64M sdr /retail	73/124	Asus P4B266-C/P4B266(DDR)	172/216		
17" Viewsonic E70/E70F	235/270	IBM (7200rpm)		ATI Radeon 7500LE sdr	103	Asus P4B333M/P4B333(DDR)	122/149		
17" Viewsonic E75/P75F	272/288	40G/60G	127/163	ATI Radeon 8500LE sdr	103	Intel 850M/MTV	216/245		
17" NEC AS75F/700+	234/280	*CDROM & DVD*		ATI Radeon 8500 128M ddr /retail	125/190	Intel 845 HV/VN/PT/GM 79/183/193/199	113/189		
19" Aquaview 9GS/LG E900B	289/355	FuturePower 52/LG 52X	33/38	ATI Radeon 8500 128M ddr /retail	262/372	MSI 6547/6332	113/189		
19" Samsung 950B/955DF	300/362	Creative 52x/NEC 52X	42/45	Geforce 2Mx200 64Mtv /Mx400tv	85/105	ECS P4VXASD2	110		
19" Samsung 900NF	536	Artec 16X/LG 16X DVD	63/67	MSI / ASUS Geforce 64M ddr	159/169	ECS L455MG(vga,audio,lan)	139		
19" Viewsonic E90/E90f	359/428	Pioneer 16X DVD tray / slot	75/83	Asus V7100 Magic32MpureSE/tvSE	67/79	Stock A			
19" Viewsonic PF790/G90f	549/458	*CD/DVD-WRITER*		Asus V7100 Pro 32M pure/tv	91/107	ASUS A7V133/A7V266	171/215		
19" NEC AS90/AS95F	322/357	Panasonic 24x10x40	99	Asus V7700 TIVX 64M pure/deluxe	70/205	ASUS A7V266-E/raid	196/235		
19" NEC FE950+	465	LG 8X DVD & 12X 8X32 CDRW	119	Asus V8400 128M ddr G4 Ti4600	465	ASUS A7N266-C/-E	217/158/234		
19" SONY G410R/G420S	689/725	Artec 24x10x40/Yamaha 20x10x40	102/174	Asus V8460 128M ddr G4 Ti4600	465	ASUS A7V333/Raid	191/226		
21" Samsung 1100P+	755	Sony 24x10x40/Aopen 24x10x40	120/120			ECS K755A/K756A(333)	87/105		
22" NEC AS120/FE1250+	719/975	Plextor 24x10x40/40X12X40	189/222			ECS K756M(vga,audio,lan)	99		
22" Viewsonic G810/G815	895/1149	Philips 4x4x6(USB)	139			Soyo K7VTA-B	90		
22" Viewsonic P220f/P225f	1099/1199	Pioneer A104S DVDRW	599			Houston M810(vga,audio,modem,lan)	95		

A gaming diversion

By CHRIS TALBOT

Known for its line of affordable, but demented, board games like *Kill Doctor Lucky* and *Devil Bunny Needs A Ham* (I swear I'm not making this up), Cheapass Games has delved into the distribution of zany and insane computer games.

Cheapass's first game, *Plasmaworm* was developed by Digital Eel and is available from the Cheapass Web site (www.cheapass.com). If you want to try before you buy, links to demo versions can also be found at the site.

If you remember *Nibbles*, one of the games found in the old Microsoft *QBasic* program that came packaged with Windows 3.1, then you will very quickly recognize *Plasmaworm*. The game's controls and goals are exactly the same — move your ever-growing worm around the screen and collect 10 items to move onto the next level while trying to avoid splattering yourself all over a wall.

Nibbles and its cell phone equivalent *Snake* were based on very simple up/down/left/right controls. *Plasmaworm* gives players greater control over the angle their worms are moving, allowing for diagonal movement.

In the game, players take on the role

of a gamma class improbability tank maintenance engineer who is tasked with manipulating a plasmaworm through the otherspatial plasma around the core logic circuits of the improbability tank. Random probabilities are running rampant in the tank and players have to use the plasmaworm to eat 10 probabilities (per level).

A silly idea from a company known for silliness, *Plasmaworm* is a simple game that might turn off serious gamers but will be a nice diversion for others. If you can find this in a Canadian store, great. If you have to buy it off the U.S.-based company's Web site (and pay shipping and handling and cross-border duty charges), the game won't seem like a cheap deal. ♦

more info

Plasmaworm
US\$10
Cheapass Games/Digital Eel
www.digital-eel.com/plasmaworm
Rated: Not rated

Requirements:
266 MHz processor
16 MB of RAM
5 MB of hard disk space
DirectX 6.0 or better
DirectSound-compatible soundcard

CYBERPLAY

Union Computer & Electronic

2107 Yonge Street, Toronto (Between Eglinton and Davisville) 2nd floor light south of Eglinton, East side on Yonge
Parking at rear. OPEN SUNDAY Mon-Fri 10AM-7PM Sat 10AM-6PM Tel: 416-488-9293 Fax: 416-488-5085

Hard Drives	Video Cards	REFILL YOUR INK CARTRIDGE & RECYCLE LASER TONER
Hard Drive Removable RACK \$21	Winfast Geforce 4 T4000 / T4400 \$569 / 449	NOTE BOOK MEMORY UPGRADE
Maxtor 20 / 40 / 60 / 120 / 160 955/109/135/305/390	Geforce 2 Titanium 64 M DDR TV \$139	64M / 128 / 256 M SODIMM \$49 / 75 / 125
Maxtor 20/40/60/80/120/160 109 / 125 / 159 / 190	Geforce 3 Ti 200 64 M / 128M DDR TV \$235 / 265	IO Cards & Controllers
Fujitsu 20 / 40G (7200rpm) \$125 / 165	Geforce 4 MX440 64M DDR TV \$179	Hesped printer card / USB PORTS \$25
IBM 40 / 60 / 80G (7200rpm) \$140 / 170 / 240	SIS 8M PCI / ATI 16M / 32M PCI \$35 / 69 / 119	PROMISE IDE Pro U100FastTrack100 \$69/135
SAMSUNG 10 / 20 / 40G \$99 / 110 / 135	RIVA TNT-2 M64 32M / 32M PCI \$49 / 89	Adaptec 203 / 20160N / SCSI CARD \$69 / 309 / 69
Quantum SCSI 120 / 1.118 / 236G \$219/249/469	Geforce 2 MX440 64M PCI TV OUT \$159	IDE SOUND CARD / CD ROM / DVD
IBM SCSI UZW 18G / 36G (10000RPM) \$315 / 559	ASUS V7100 Geforce 2 32M / 64M \$65 / 119	SoundBlaster LIVE 5.1 \$45
Seagate SCSI 8.2G / 18.4G (7200RPM) \$249 / 269	ASUS 8200Geforce 3 64 M PureDeluxe \$279 / 335	SoundBlaster PLATINUM Audigy / EX \$260 / 339
Seagate SCSI 180/36/73 CHEETA \$325/519/1219	ASUS V8200 64M TS PURE / DELUXE \$490 / 550	SoundBlaster 128PCI / 32 PCI \$239 / 119
WD 20 / 40 / 60G (7200RPM) \$115 / 130 / 170	ASUS V7700 Geforce 2DDR Pure / Deluxe \$169/199	SB MP3 Audio / X-GAMER 5.1 \$135 / 135
NoteBook Hard Drive 10/20/30G \$159 / 189 / 259	ASUS V8400 Geforce 4 Ti4400 128M \$220 / 270	Logitech INTEL Camera \$45 / 49
Floppy Drives & Tape Backups	ATI Radeon 64M DDR TV In/out \$235	DVD DECODER REAL-MAGIC / TV-OUT \$89 / 95
Panasonic or Fujitsu 1.44/1.2 Floppy \$18 / 45	ATI Radeon 7500 / 8500 64M \$119 / 250	Toshiba / NEC / GOLDSTAR DVD 16X \$75
Panasonic LS-120 120MB Floppy Int \$129	ATI Radeon 7500 / 8500 64M \$119 / 250	Pioneer DVD 16X / 10X/SCSI \$80 / 175
Image 100MB ZIP Int \$65	ATI Radeon 7500 / 8500 64M \$119 / 250	Creative 52X IDE CD-ROM \$40
Image 250 MB Zip Int/Ext \$119 / 229	ATI Radeon 8500 All-in-Wonder DV \$445	Pioneer 40X SCSI CD-ROM \$189
Image ZIP 100/250 MB USB \$179 / 229	ATI XPERT 2000 32M / Xpert 98 8M \$55 / 35	NEC / TOSHIBA 40X SCSI CD-ROM \$120/109
Seagate 8 / 20 G TAPE STORE IDE INT \$295 / 415	MATROX G550 32M TVOUT DUAL \$169	KVM / SWITCH Keyboard / Video / Mouse \$29/65
Main Boards	Monitors	CD WRITER / BLANK CD
P-2P 3 MAINBOARD (SLOT 1) \$135	Viewsonic LCD 15" / 17" / 18" \$589 / 1199 / 1540	Blank-CD 50 pcs / 100PCS \$19 / 30
P-4 Mainboard \$130	SAMSUNG / LCD 15" / 17" / 18" \$550 / 970 / 1440	PANASONIC D311V DVD-RAM/SCSI \$469 / 529
ASUS A7A133 / A7V266 \$129 / 199	NEC LCD 15" / 17" / 18" \$515 / 935 / 1110	Pioneer / HP DVD-Rewriter / DISC \$589 / 619 / 10
ASUS A7V266 / A7V266E / A7V333 \$190/219/165	GOLDSTAR LCD 15" 18" \$550 / 1460	GOLDSTAR DVD + CDRW (Combo) \$139
ASUS A7N266E / A7N266 \$279 / 245	SAMSUNG 15" 550S / 17" 750S / 753DS/179/195/229	EXT USB 24X10X40 SONY \$259
ASUS P-4 P4T / P4B / PATE \$165 / 180 / 230	SAMSUNG 17" 700TFT \$365	SONY 24X10X40 \$129
ASUS P4B266 / P4B266 \$175 / 220	SAMSUNG 19" 900F/955SL/955DF \$515/369/355	BTX 12X/8X/32 / 16X10X40 \$85 / 99
ASUS P4S533 SODIOR / P4S333M \$160 / 125	SAMSUNG 19" 900F/955SL/955DF \$515/369/355	Sony / Teac 24X10X40 \$119
ASUS TUSM / LAN / SC / V/C / FAX \$35	SAMSUNG 19" 900F/955SL/955DF \$515/369/355	JOEEN 24X10X40 / 32X12X48 \$125 / 135
MSI P4-6528/5354/5524/5647 \$170/159/149/129	NEC 17" FE700 / AS75F \$285 / 235	GOLDSTAR 24X10X40 / 32X12X48 IDE \$115/130
MSI KT-6341/6501/6733 \$125/369/239	NEC 19" FE950 / AS90 / AS95F \$469 / 325 / 359	SAMSUNG 12X/8X/32 / 8X/4X/32 \$110 / 99
MSI 6300 KTT266PROA / KTT266APRO2 \$135/155	Sony 17" E200 / G200S / G220R \$449 / 539 / 489	NEC 16X10X40 / 24X10X40 \$120 / 125
ECS K7AMA / K75SA / P4SSA \$99 / 89 / 119	Sony 19" G400 / G410R / G420S \$759 / 690 / 735	Lite-On 24X10X40 / 24X12X40 \$119 / 130
Tyan DUAL CPU (K7 S2460) (P-3-2507) \$339 / 185	Viewsonic 17" E700 / E70F / PF775 \$239 / 275 / 425	Yamaha 20X10X40 / 24X10X40 \$179 / 199
CPUs (Please call for latest prices)	Viewsonic 19" G90F / PF790 / E90F \$439 / 529 / 409	Yamaha 20X10X40 SCSI / EXT \$319 / 399
Intel P4 1.9 / 2.0 / 2.2 / 2.4G \$379 / 465 / 659 / 910	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	Microsolution ext 8X/8X32 USB / Parallel \$325
Intel P4 1.4 / 1.5 / 1.6 / 1.7 / 1.8G \$239 / 235 / 240 / 275/315	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	TKD 32X10X40 IDE / Firewire EXT \$225 / 415
Intel P3-600 / 1.1 / 1.3 / 1.2G \$219 / 229 / 355	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	Plexitor 12X10X32 IDE / SCSI / EXT \$149/369/529
Intel P3-600 / 1.1 / 1.3 / 1.2G \$219 / 229 / 355	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	Plexitor 40X12X40 / 24X10X40 IDE \$229 / 195
Intel Celeron 550 / 1.1 / 1.1 / 1.2G \$125/129/149/155/149	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	Extremes Case for CD-ROM/HARD DRIVE \$95
Intel Pentium 233MMX / PII - 400 \$65 / 149	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	Aluminum case Lian-Li \$209
DURON 900 / 1.0 / 1.1 / 1.2G \$89 / 95 / 105 / 119	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	Enemag power supply (whisper quiet) \$59
AMD-XP 1700/1800/1900/2000 \$189/199/239/370	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	CSA powersupplies250W/300W \$35 / 49
AMD-MP 1600 / 1800 / 1900 \$285 / 315 / 349	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	CPU fan / SLOTT FAN / CASE FAN \$5 / 10 / 10
K7-1.1 / 1.2 / 1.3 / 1.4G \$149 / 159 / 169 / 169	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	THERMALTAKE ENGINE COOLING FAN \$25
AMD-K7 900 / 950 / 1.1 G \$109 / 115 / 145	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	Printers
RAM Memory (Please call for latest prices)	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	Brother 1240 600dpi / 1030 \$359 / 319
Sandisk Smart Media 32 / 64 / 128M \$45 / 65 / 125	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	ATX FULL / MID-TOWER \$89 / 35
Compact Flash Card 32/64/128/256 \$45/75/119/195	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	External Case for CD-ROM/HARD DRIVE \$95
RAMBUS PC800 64 / 128 / 256 \$39 / 65 / 125	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	Aluminum case Lian-Li \$209
DDR PC266 128 / 256 / 512 \$65 / 115 / 225	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	Enemag power supply (whisper quiet) \$59
DDR PC333 256 / 512 \$135 / 249	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	CSA powersupplies250W/300W \$35 / 49
EDO 16M / 32M / 64M 72pin \$30 / 40 / 79	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	CPU fan / SLOTT FAN / CASE FAN \$5 / 10 / 10
PC-100 16M / 64M / 128M / 256M \$20/30/60/100	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	THERMALTAKE ENGINE COOLING FAN \$25
PC-133 64 / 128 / 256 / 512 \$30 / 55 / 89 / 205	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	Printers
PC66 32 / 64 / 128M 166pin \$20 / 30 / 60	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	Brother 1240 600dpi / 1030 \$359 / 319
NOTEBOOK RAM 64 / 128 / 256 \$49 / 75 / 125	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	ATX FULL / MID-TOWER \$89 / 35
Motherboard + CPU Bundle	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	External Case for CD-ROM/HARD DRIVE \$95
Intel P 1.0 CE + ASUS Mainboard \$225	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	Aluminum case Lian-Li \$209
Intel Pentium III - 1.1 G+ ECS MAINBOARD \$345	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	Enemag power supply (whisper quiet) \$59
P-4 - 1.6G + ASUS MAINBOARD \$425	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	CSA powersupplies250W/300W \$35 / 49
AMD DURON K7-1G + ECS MAINBOARD \$189	Viewsonic 21" G810 / P810 / G815 \$899 / 1090 / 1135	CPU fan / SLOTT FAN / CASE FAN \$5 / 10 / 10

WE DO UPGRADE * REPAIR * COMPUTER * PRINTER * MONITOR

21606314

TORONTO
3560 Victoria Park
T: 416-4921600

Steelers Ave
Tempo Ave.
Finch Ave

OFFICE HOURS:
M-F: 11-7
SAT: 12-6

2000 COMPUTER

MARKHAM
E22, Pacific Mall
4300 Steeles Ave
T: 905-4151182

14th Ave
Pacific Mall
E22

OFFICE HOURS:
11-8
7 DAYS

BEST VALUE

INTEL CELERON 1.2GHZ
128MB SDRAM
20G HD ATA100
56XCDROM
128 BIT 3D AGP VIDEO
18 BIT 3D SOUND
56K V.90 MODEM
10/100 PCI ETHERNET
ATX 300W CASE
160W STEREO SPEAKER
.....DOWS KB/WHEEL MOUSE

USB COLOUR SCANNER
USB COLOUR PRINTER

\$899

17" SVGA MONITOR

SUPER FAST

AMD XP1900
256MB PC2100 DDRAM
40G HD 7200RPM
12X8X32 CDR-WRITER
16XDVD ROM PLAYER
1.44 FLOPPY
64MB AGP VIDEO CARD
18BIT 3D PCI SOUND
56K V.90 MODEM
10/100 PCI ETHERNET
ATX 300W CASE
WINDOWS KB/WHEEL MOUSE
600W SUBWOOFER

\$1199

19" .26 SVGA MONITOR

THINKPAD X20 SUPER SLIM \$1599
INTEL C500MHZ/128MB/10G/56K/12.1" TFT
(LESS THAN 1 INCH, 2.9LBS ONLY)

SONY VAIO PCG SR27 \$1799
INTEL PIII 600MHZ/128MB/10G/56K/10.4" TFT/EXT 16XCD

COMPAG ARMADA 110 \$1699
INTEL PIII 800MHZ/64MB/10G/24X CD/56K LAN/14.1" TFT/MIN ME

COMPAG EVO N150 \$1899
INTEL PIII 800MHZ/128MB/15G/DVD/56K/LAN/14.1" TFT

COMPAG PRESARIO 1700 \$2199
INTEL PIII 800MHZ/128MB/15G/DVD/56K/LAN/14.1" TFT

HP PAVILION N5415 \$1799
AMD DURON 900MHZ/256MB/10G/DVD/56K/LAN/14.1" TFT

GATEWAYS SOLO 5300 \$1599
INTEL PIII 750MHZ/128MB/10G/24XCD/56K/LAN/14.1" TFT

NOTEBOOK OUTLET

FUJITSU LIFEBOOK S-4542 \$1699
INTEL PIII 600MHZ/64MB/6G/24XCD/56K/LAN/EXT FLOPPY/12.1" TFT

FUJITSU LIFEBOOK \$1899
INTEL PIII 650MHZ/128MB/10G/CD-RW WRITER/56K/14.1" TFT

FUJITSU LIFEBOOK P2040A \$2499
CRUSOE 800MHZ/128MB/20G/DVD-CDRW COMBO 56K/LAN/10.6W XGA

BEST BUY

P4 1.8GHZ
128MB SDRAM Pc133
20G HD ATA100
12X8X32 CDR-WRITER
16XDVD ROM PLAYER
1.44 FLOPPY
32MB AGP VIDEO CARD
18BIT 3D PCI SOUND
56K V.90 MODEM
10/100 PCI ETHERNET
P4 ATX CASE/300W
WINDOWS KB/ MOUSE
600W SUBWOOFER

\$999

17" SVGA MONITOR

21 CENTURY

P4 1.9GHZ
256MB SDRAM Pc133
60G HD ATA100
16X DVD/1.44 FLOPPY
GEFORCE 4 64MB DDR
MX440 VIDEO CARD/TV OUT
18BIT 3D PCI SOUND
56K V.90 MODEM
10/100 PCI ETHERNET
P4 ATX 300W CASE
INTERNET KB
WHEEL MOUSE
4.1 HOME THEATER

\$1499

21" SVGA MONITOR
1920X1440 DAIMONDTRION

ADVANCE

C3 1GIGAPRO
256MB SDRAM PC-133
20G HD ATA100
56XCDROM
1.44 FLOPPY
3D AGP VIDEO
16BIT 3D PCI SOUND
56K V.90 MODEM
10/100 PCI ETHERNET
INTERNET KB
WHEEL MOUSE
800W FLAT PANEL SPEAKER

\$999

15" TFT LCD

KDS VIVANT 6380 \$1599
INTEL PIII 800MHZ/64MB/10G/DVD/
FLOPPY/56K/13.3" TFT

I-BUDDY LAPTOP A900
VIA 1GIGAPRO/128MB
10GB/24XCD/56KMODEM
10/100LAN/14.1" TFT
4 USB PORT/TV OUT

\$988

I-BUDDY LAPTOP A901
INTEL C1.1GHZ/256MB
10GB/DVD/56KMODEM
10/100LAN/14.1" TFT
4 USB PORT/TV OUT

\$1288

P4 P4 P4 LAPTOP!!!

INTEL P4 1.6GHZ
256MB DDR RAM / DDR RAM!!!
20G HD (UP TO 40GB)
DVD PLAYER
UP TO 64MB DDR RAM VIDEO
5.1 SURROUND SOUND
56K MODEM / 10/100 ETHERNET
4XUSB 2.0 / I-1394 FIRE WIRE
S-TV / OUT

15" TFT SCREEN \$1688

canadacomputes.com MAY 2002 TORONTO COMPUTES!

53

Black Thorn puts a different twist on FPS games

By CHRIS TALBOT

Rogue Spear: Black Thorn is the newest in the *Rainbow Six* series of games. Touted as being from the mind of author Tom Clancy (the Jack Ryan novels), players assume the personae of members of Team Rainbow, a multinational counter-terrorism organization.

Black Thorn takes place after the events in the first games – *Rainbow Six*, *Rogue Spear*, *Urban Operations* and *Covert Ops Essentials*. None of the original games are necessary to play the game or enjoy the story of *Black Thorn*. The world's new terror is an enemy that evades Team Rainbow and seems to be able to anticipate how the group's leaders think. An awesome threat indeed.

As a first-person shooter (FPS), *Black Thorn* is of average quality. Charging into an enemy stronghold with a battle cry will only get the operatives killed (and in this game, one bullet can kill). However, the *Rainbow Six* series is obviously not aimed at the traditional FPS crowd. Before heading out on a mission, tactical planning is required. Players get a

layout of the hot zone and are required to plot out a plan of attack for their squads (pre-made strategies are available if you're in a hurry to jump into combat).

Even once you're out on the field, the game is lacking in many aspects found in other FPS games. Movement is smooth and doesn't give you the feeling that you're walking or crawling along the ground. It's more like the really old *Wolfenstein* and *Doom* shooters that kicked off the genre, although the graphics are of a much higher quality. In terms of sound, *Black Thorn* is poor, mainly because there is so little of it. Many of the guns are silenced. You can't hear your own footsteps, and often enough, you can't hear the footsteps of the terrorists, either. Not good, as sound plays a big part in stealthy maneuvers.

Black Thorn was easy to install. The commands were quick to learn, although the training missions don't live up to their name. Training implies helping players to learn the game, but the training missions don't give players any hints, tips or instructions. So unfortunately, players will most likely need to at least glance at the manual.

Thankfully, the commands are printed in the CD-ROM's slipcase. Too many games don't offer this.

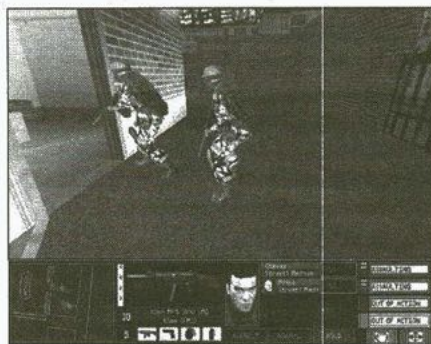
Single and multiplayer games are supported. In the single player campaign, Team Rainbow is sent out on missions to stop the terrorist enemies from killing innocents or taking hostages. In fact, the first mission is a hostage rescue. Kill all the terrorists and you've won. Taking prisoners doesn't seem to be an option. It's too bad because questioning one of them might lead to Team Rainbow tracking down their leaders a lot quicker.

In single player mode, you can also create custom missions. You can choose to run an assault on a terrorist

complex with up to 30 terrorists running around, go it alone and try to make it through a terrorist base to get to a rendezvous point (much easier said than done) or set up a hostage rescue in any of the locations available.

Multiplayer lets you go online and team up with your buddies or go head-to-head with them. Multiplayer mode was not tested.

Again, I'll stress this isn't a typical FPS. Tactics and stealth are necessary to win the game, not barbaric ram-pages. ♦



more INFO

Rogue Spear: Black Thorn
Ubi Soft
\$44.99
www.ubisoft.com



Requirements:
Windows 95/98/2000
266 MHz Pentium II processor or better
64 MB RAM
DirectX 8.0-compatible video card
DirectX 8.0-compatible soundcard
4X CD-ROM or better
550 MB free hard disk space

ORACLE @ HiTech Institute

ORACLE DBA + Solaris OR MCSE 2000 @ HiTech

ORACLE JDeveloper @ HiTech ORACLE Passport @ HiTech

ORACLE Developer + Java @ HiTech

We are hiring

ATTENTION	WHY ORACLE @ HiTech	Diploma in Networking	E-Business Package	Certification	MS OFFICE
SCHOLARSHIPS UP TO 60% OFF*	<ul style="list-style-type: none"> 100% Passing Result in OCP exams Oracle Official Curriculum 40% Discount on OCP exam fee OCP exam online Preparation Experience & Certified Instructors Unlimited Lab facility and Projects Specializing in Oracle Consulting Oracle on all platforms (Solaris on SPARC, HP-UX, AIX, LINUX, & w2k) 	A+, MCSE, MCDBA, MCSA OR A+, MCSE, CCA, Unix Solaris \$4499	MCSE, E-Commerce MCSD, C, C++ Java Cert \$4499	A+ / CCNA \$449 MCSE & A+ \$2299 MCSD/MCDBA \$2299 MCSA \$1599 Unix Solaris \$1599 E-Commerce \$1599 C&C++ \$999 Java Cert. \$1599 Network+ \$299	MOUS Certification 6 Months \$499

www.htinstitute.com

Toronto Campus 416-513-1535
842 Yonge St. # 300
1-800-816-4811

Mississauga Campus
165 Dundas St. West #600

HRDC/ETI funding available for qualified applicants. Placement Services available. Registered and approved as a Private Vocational School.



Ink-Jet and Laser Toner Cartridge Refill

80-90% Savings
Ink Refill Kits For:
Canon, HP, Epson, NEC, Compaq
Lexmark, Apple, Brother, Xerox ...

Toronto
(416) 822-0918

Mississauga
(905) 275-8988

Save 50-75% on Laser Printers & Copiers

Please call any time for the prices.
Express delivery is available. Call for the details.

Apple, Brother, Canon, Epson, HP
Lexmark, Mita, NEC, Okidata, Panasonic
Pitney Bowes, Ricoh, Sharp, T I, Xerox

Mississauga: # 10E, 505 Queensway East (west of Cawthra Rd., 2nd floor) Mon-Fri:10-4 Sat:10-12
Scarborough: #23, 50 Weybright Court (Sheppard Av. & Midland Av.) Mon-Fri:12-6 Sat:12-4

1Stop PC Your one stop computer shop

200 Marycroft Ave Unit 23
Woodbridge, Ontario L4L 5X6
sales@1stop-pc.net 905 265-7770 Fax 905 265-7592 on all systems

What's on special for May

P4 Value System \$1299
Improve your Graphics performance by up to 300%
Add a GeForce or Radeon AGP Video Card

Entry Level \$789.00
AMD® Athlon XP 1700+
MSI K7T 266T VMC Mainboard
PC-2100 256MB DDR Memory
40GB 7200 RPM IDE Hard Drive
ATI Radeon 7500 64MB 3D AGP Video
ASUS 52X CD ROM Drive
16 Bit 3D Sound & Stereo Speakers
10/100 Network/High Speed Internet
Panicom 3.5" Floppy Drive
Mid tower case quiet 300 watt PS
Logitech PS/2 Keyboard & Mouse & Pad
Logitech PS/2 Scroll Mouse & Pad
Windows XP Home

Office/Workstation \$1389.00
AMD® Athlon XP 1700+
MSI K7T 266T VMC Mainboard
PC-2100 256MB DDR Memory
40GB 7200 RPM IDE Hard Drive
ATI Radeon 7500 64MB 3D AGP Video
ASUS 52X CD ROM Drive
16 Bit 3D Sound & Stereo Speakers
10/100 Network/High Speed Internet
Panicom 3.5" Floppy Drive
Mid tower case quiet 300 watt PS
Logitech PS/2 Keyboard & Mouse & Pad
Logitech PS/2 Scroll Mouse & Pad
Windows XP Home

PC1700XP+ \$1499.00
Samsung 750S 24 17" Monitor
AMD® Athlon XP 1700+
MSI K7T 266T VMC Mainboard
PC-2100 256MB DDR Memory
40GB 7200 RPM IDE Hard Drive
ATI Radeon 7500 64MB 3D AGP Video
ASUS 52X CD ROM Drive
16 Bit 3D Sound & Stereo Speakers
10/100 Network/High Speed Internet
Panicom 3.5" Floppy Drive
Mid tower case quiet 300 watt PS
Logitech PS/2 Keyboard & Mouse & Pad
Logitech PS/2 Scroll Mouse & Pad
Windows XP Home

I-1800PC \$1589.00
Samsung 750S 24 17" Monitor
Intel® Pentium® 4 1.6GHz CPU
ASUS P4B Mainboard
PC-133 256MB SDRAM Memory
40GB 7200 RPM IDE Hard Drive
GeForce 2 MX400 64MB 3D AGP Video
ASUS 52X CD ROM Drive
16 Bit 3D Sound & Stereo Speakers
10/100 Network/High Speed Internet
Panicom 3.5" Floppy Drive
Mid tower case quiet 300 watt PS
Logitech PS/2 Keyboard & Mouse & Pad
Logitech PS/2 Scroll Mouse & Pad
Windows XP Home

ULTRA-ASUS \$2149.00
Samsung 750S 24 17" Monitor
Intel® Pentium® 4 1.6GHz CPU
ASUS P4B Mainboard
PC-133 256MB SDRAM Memory
40GB 7200 RPM IDE Hard Drive
GeForce 2 MX400 64MB 3D AGP Video
ASUS 52X CD ROM Drive
16 Bit 3D Sound & Stereo Speakers
10/100 Network/High Speed Internet
Panicom 3.5" Floppy Drive
Mid tower case quiet 300 watt PS
Logitech PS/2 Keyboard & Mouse & Pad
Logitech PS/2 Scroll Mouse & Pad
Windows XP Home

UPGRADE "We do it better"

"I don't have the power captain"

Don't worry let 1Stop upgrade your slow pentium system to a high speed pentium 3 or 4 for less than you think

From Pentium 1,2,3
Intel Pentium 4 1.6GHz CPU
ECS P45SA P4 MB SDRAM
16Bit 3D Sound, 10/100 LAN
\$449.00
Pentium 4 1.6GHz add \$105

From 486/Pentium AT
Intel Celeron 1 GHz CPU
Infineon PC-133 128MB RAM
Midtower case and Power Supply
MSI/ECS K7-133 MainBoard
16Bit 3D Sound, 32MB 3D Video
Logitech PS/2 Keyboard & Mouse
\$399.00
Pentium III 1000MHz add \$90

AMD Thunderbird 1.3GHz CPU
MSI 6340 XP MainBoard
16Bit 3D Sound, 32MB 3D Video
CPU Cooling Fan
\$389.00
AMD XP1700+ add \$49

AMD Thunderbird 1.3GHz CPU
128MB PC-133 SDRAM
Midtower case and Power Supply
MSI/ECS K7-133 MainBoard
16Bit 3D Sound, 32MB 3D Video
CPU Cooling Fan
Logitech PS/2 Keyboard & Mouse
\$489.00

Prices are already cash discounted, and are subject to change without notice.
Logos, trademarks, and copyright are the property of their respective owners.
We accept Corporate P.O., Visa, MasterCard, American Express, Interac and cash.
All certified cheques, money orders, bank drafts, and travellers cheques will be verified.

PC Village

www.pcvillagecanada.com

--Check daily on-line CPU & RAM price, special--

Scarborough

COMING SOON

North York

2221 Yonge Street
(Yonge/Eglinton)
Tel: 416.322.2221
Fax: 416.322.0227

Eglinton

Toronto

684 Yonge Street
(Yonge/Bloor)
Tel: 416.975.9268
Fax: 416.975.0291

Bloor

Richmond Hill

#245 - Unit 3
W. Beaver Creek Rd.
Tel: 905.889.5488
Fax: 905.889.0663

Hwy 7

Markham

3229 Hwy 7 E #7
(Hwy 7/Woodbine)
Tel: 905.947.1918
Fax: 905.947.1921

Hwy 7

Woodbine

BEST DEAL

INTEL P4-1.6G CPU, 128 MB PC133 SDRAM
P4 M920 MB, 40GB HDD
52X CO-ROM, 1.44 FLOPPY DRIVE
SIS 32M AGP VIDEO CARD
32BIT SOUND CARD, 56K V.90 MODEM
10/100 NETWORK CARD
ATX MID TOWER WITH P4 POWER SUPPLY
104 KEYBOARD/MOUSE, 120 W SPEAKERS
17" SAMSUNG 750S MONITOR

\$789

NEW RELEASE

AMD XP 1700+ CPU, 256MB PC2100 DDR
ECS K7S5A MB, 40GB HDD
LG 8X DVD/12X8X32 CD_RW COMBO
1.44 FLOPPY DRIVE
RIVA TNT2 32M AGP VIDEO CARD
56K AOPEN MODEM V.90, 32 BIT SOUND CARD
10/100 NETWORK CARD, SUBWOOFER
ATX MID TOWER WITH 300W POWER SUPPLY
INTERNET KEYBOARD/WHEEL MOUSE

\$769

DIAMOND SYSTEM

INTEL P4-1.6G CPU, 128 MB PC2100 DDR
ASUS P4B266_C MB, 40GB HDD
LG 8X DVD/12X8X32 CD_RW COMBO
GEFORCEII MX 32M VIDEO CARD
AOPEN 56K MODEM, 1.44 FLOPPY DRIVE
S.B. 128 SOUND CARD, 120W SPEAKERS
ATX MID TOWER WITH P4 POWER SUPPLY
INTERNET KEYBOARD/ WHEEL MOUSE
17" SAMSUNG FLAT SCREEN MONITOR

\$1099

ALL SYSTEMS WITH FIVE YEARS LABOUR & ONE YEAR PARTS WARRANTY

SUPER SPECIAL

ASUS TUSI-M MB, INTEL CELERON 850 CPU
128 MB PC-133 SDRAM, 20 GB HDD
52X CD-ROM, 1.44 FLOPPY DRIVE
16M VIDEO CARD(SHARED)
16BIT SOUND CARD
10/100 NETWORK CARD
ATX MID TOWER WITH 300W POWER SUPPLY
104 KEYBOARD/MOUSE, 120 W SPEAKERS

\$429

HOME & OFFICE

AMD DURON 1GB CPU, 128 MB PC133 SDRAM
ECS K7VZM MB
20 GB HDD
52X CD-ROM, 1.44 FLOPPY DRIVE
RIVA TNT2 32M AGP VIDEO CARD
32 BIT SOUND CARD
10/100 NETWORK CARD
ATX MID TOWER WITH 300W POWER SUPPLY
104 KEYBOARD/MOUSE, 120 W SPEAKERS

\$469

MAGMA SYSTEM

INTEL P4-1.7G CPU, 256 MB PC800 RDRAM
ASUS P4T MB
40GB HDD 7200RPM
16X DVD, 16X10X40 CD_RW
GEFORCEII MX 64M AGP, 1.44 FLOPPY DRIVE
CREATIVE S.B. LIVE 5.1, SUBWOOFER
ATX MID TOWER WITH P4 POWER SUPPLY
INTERNET KEYBOARD/ WHEEL MOUSE
19" SAMSUNG FLAT SCREEN MONITOR

\$1488

ALL PRICE ARE ALREADY 3% CASH DISCOUNTED, PRICE SUBJECT TO CHANGE WITHOUT NOTICE

MONTHLY SPECIAL

LITEON 16X10X40 CDRW **\$99**
LG 32X10X40 CDRW **\$115**
LG 8X DVD/12832 CD_RW COMBO **\$119**
40GB HDD **\$105**
SAMSUNG 1250 LASER PRINTER **\$299**
SAMSUNG 19" FLAT 955DF **\$355**
SAMSUNG 15" 151S LCD **\$532**
AMD XP 1700+ CPU **\$165**
CANON S300 PRINTER **\$106**
100PCS CD_R 24X 700M **\$29**
AOPEN GEFORCE4 MX440 64M **\$159**

UPGRADE KITS

1. INTEL PIII 933 CPU
PC_CHIPS M694 MAINBOARD
ATX CASE WITH 300W POWER
.....**\$299**

2. INTEL P4 1.6GB CPU
PC_CHIPS M920 MAINBOARD
ATX CASE WITH 300W POWER
32BIT SOUND CARD
56K V.90 MODEM
10/100 NETWORK CARD
.....**\$399**

Mainboard	Video Card	Hard Drive	Monitor
ASUS TUSI-M \$86	ATI TV WONDER(O) \$85	IDE-HDD 5400 7200	SAMSUNG
ASUS TUV4X \$115	ATI TV WONDER USB(O) \$115	MAXTOR RPM RPM	*17" 750S \$192
ASUS TUSL2_C \$142	ATI DV WONDER(R) \$65	20GB \$94 \$105	*17" 753DF \$224
ASUS P4T \$129	ATI XPERT 2000 32M PRO(O) \$55	40GB \$108 \$123	*17" 700NF \$340
ASUS P4T_E \$219	ATI ALL-IN-WON 64M R7500(O) \$246	60GB \$137 \$153	*19" 950B \$297
ASUS P4B \$182	ATI ALL-IN-W 64M R8500 DV(O) \$465	80GB \$176 \$189	*19" 955DF \$356
ASUS P4B266_C \$172	ATI RADEON 7000 32M SDR(O) \$64	120GB \$275	*19" 900NF \$515
ASUS P4B266 \$223	ATI RADEON 7000 64M TV(O) \$79	160GB \$387	*15" LCD 151S \$532
ASUS P4S333 \$146	ATI RADEON 7500 64M DDR(O) \$129	W.D.	*17" LCD 171S \$949
ASUS P4S333_VM \$127	ATI RADEON 8500LE 64M(O) \$221	20GB \$98 \$108	*WITH SYSTEM PURCHASE ONLY
ASUS A7V333/RAID \$186/\$228	ATI RADEON 8500LE 128M(O) \$272	40GB \$104 \$126	VIEWSONIC
ASUS A7V266-E/RAID \$192/\$219	ASUS V7100 32M MAGIC PURE \$69	60GB \$149 \$164	17" E70F \$269
ASUS A7N266 \$239	ASUS V7100 32M MAGIC TV \$79	80GB \$194	19" PF790 \$532
ASUS A7N266-E \$275	ASUS V7100 64M PRO PURE \$109	100GB \$289	19" G90F \$445
ABIT TH7 II/RAID \$229/\$259	ASUS V7100 64M PRO TV \$129	120GB \$275 \$305	15" LCD VE150 \$579
ABIT KR7A/RAID \$182/\$219	ASUS V8200 64M G3 T2 PURE \$219	IBM	LG
ECS K7S5A \$85	ASUS V8200 64M G3 T2 DELEX \$259	40GB \$139	17" 700S \$198
ECS K7VZM \$59	ASUS V8200 64M G3 T5 PURE \$422	60GB \$169	17" E700B \$228
ECS P4S5A \$105	ASUS V8200 64M G3 T5 DELEX \$479	80GB \$229	19" E900B \$335
ECS P4VMM \$89	ASUS V8170 64M G4 MX440 \$169	120GB \$388	
	ASUS V8440 128M G4 TI 4400 \$455		
	ASUS V8460 128M G4 TI 4600 \$619		
CD/DVD/CD_RW	Sound Card	Ethernet	Printer
AOPEN 52X CDROM \$37	32BIT PCI SOUND CARD \$18	10/100 ETHERNET PCI \$14	CANON
SONY 52X \$41	64BIT PCI SOUND CARD \$22	AOPEN 10/100 NIC PCI \$18	S200 \$77
LG 16X DVD \$72	S.B. 128 PCI \$29	DLINK 10/100 NIC PCI \$25	S300 \$106
SONY 16X DVD \$81	S.B. LIVE 5.1 OEM PCI \$46	3COM 10/100 905C TX NIC \$59	SAMSUNG
PIONEER 16X DVD \$80	S.B. AUDIGY OEM PCI \$91	5 PORTS HUB 10M BPS \$36	ML 1210 \$279
LG 32X10X40 CD_RW \$115	S.B. AUDIGY MP3+X-GAMER (R) \$131	DLINK 10/100 5PORTS SWITCH \$88	ML 1250 \$299
LG 24X10X40 CD_RW \$107	S.B. AUDIGY PLATINUM 5.1(R) \$263	DLINK 10/100 8PORTS SWITCH \$89	EPSON
LG 8X DVD/12832 CDRW COMBO \$117		U.S.R. 4PORTS ROUTER \$109	C40UX \$64
SONY 24X10X40 CD_RW \$119		LINKSYS BEF-SR41 ROUTER \$129	C80 \$136
PLEXTOR 40X12X40 \$229		LINKSYS BEF-SR81 ROUTER \$245	C80 \$255
LITEON 16X10X40 \$99		LINKSYS WIRELESS ROUTER \$269	LEXMARK
LITEON 32X10X40 \$114		LINKSYS WIRELESS USB NIC \$139	Z22 \$82
AOPEN 32X12X48 \$122		LINKSYS WIRELESS PCMCIA \$139	Z33 \$112
AOPEN 24X10X40 \$109		APC UPS BACKUP 500VA \$149	HP
YAMAHA 241040 \$179		USB HDD ENCLOSURE EX. \$120	656C \$92
PIONEER DVD_RW \$659			845C \$129
			1000 LASER \$355

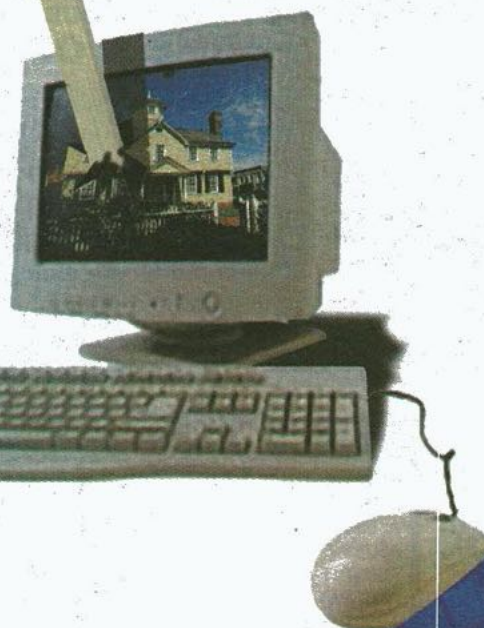


www.cadns.ca

Canadian Domain Name Services



It's like real estate
for the web.



Registration Services

- .ca, .com, .net, .org
- .biz, .info, .name

DNS Services

- email@yourdomain.ca
- Domain Forwarding

Get Your Website

From
\$60.00/hr

Hosting Services

- multiple domain hosting
- easy to use web control panel
- e-commerce hosting (SSL)

CALL NOW

1.800.473.8096
1.905.436.6814

CYBERPLAY

Glasses pop games into 3-D



By CHRIS TALBOT

It's been a long time since there was an attempt at building 3-D gaming glasses, but Toronto's Teckzone has brought i-O Display Systems' H3D Gaming & Internet Glasses for the PC to Canada.

Designed for the PC gaming environment, the H3D wireless glasses don't have the most user-friendly setup procedure in the world, but in the absence of any competition, beggars can't be choosers (unless you choose not to buy, that is).

With a \$149.99 price tag, the glasses will probably fall outside the realm of possibility for most gamers.

However, before shelling out your hard-earned money, you should be aware the algorithm that creates the 3-D effect will work better with some games than others and you might find the results to be less than spectacular in some instances. When you view the custom-made graphics in the H3D test area, it looks like you'll be in for a wild ride, but when you use the glasses in a game like *Aliens vs. Predator 2*, the results aren't quite the same.

A big problem with the glasses themselves is with the "ON" button. It's a little finicky and I found I had to push the button very hard in a certain way or the glasses wouldn't turn on.

While the H3D glasses might not have quite the impact i-O was hoping for, at least they're on the right track. Some tweaking of the technology is in order to make the glasses easier to configure, however. With the support of the major game producers, the effects that could be written into the code could be amazing. ♦

more INFO

H3D Gaming & Internet Glasses
\$149.99
i-O Display Systems
www.i-glasses.com

Requirements:
Windows 95/98
CRT monitor
32x CD-ROM drive or 400 MB of free hard disk space
Not compatible with flat LCD monitors

Jedi Outcast continues Star Wars saga

By ERIK SEBELLIN

Third time is the charm, right? Not always. The first game in this series, *Dark Forces*, was a *Doom* clone, but it was



good for its day. Then, we had *Star Wars Jedi Knight: Dark Forces II*. This one was quite good: The gameplay was story-driven, you could select from a number of story options (you could, for example, join the dark side) and your character was very compelling. And now, we have *Star Wars Jedi Knight II: Jedi Outcast*. Technically, it is significantly better than either of the previous releases, especially the excellent artificial intelligence, but you are restricted to a linear storyline.

Set nearly a decade after the events of *Jedi Knight*, *Jedi Outcast* continues with the same characters: Kyle Katarn and his partner Jan Ors. Kyle and Jan are mercenaries who work for the New Republic (what the Rebels called themselves after they beat the Empire). The game starts when the duo are sent to a remote planet to investigate an intercepted transmission that mentions the Valley of the Jedi.

Levels are set up so you can approach problems from a variety of angles. For example, if a heavily shielded guard is protecting a room you need to get into, you may be able to find an alternate entrance that bypasses the guard. Unfortunately, however, the levels also include a tiresome number of jumping puzzles you must master to reach your goal and an inordinate amount of key hunting before you can unlock doors.

Enemies range from simple Storm

Troopers up to Dark Jedi, all of which are deviously clever. Despite the large assortment of weapons, the only ones worth mentioning are the lightsaber and the Force. The lightsaber takes a lot of getting used to, but once you get the hang of it, saber dueling is great fun, especially against an intelligent opponent. The Force, which is also great fun, gives you a range of powers such as Force Pull, which pulls enemies and objects toward you, Force Push, which does the opposite, and Force Jump, which lets you jump very high.

The graphics are nice, but not spectacular. On the downside, the environments are boring and even occasionally ugly, but on the upside, the lightsaber is very beautiful and the character models feature a ton of polygons.

Sound is excellent; not only do you get an orchestral score reminiscent of

John Williams' work in the *Star Wars* series, but lightsaber and weapon sounds are faithful to the movie. Billy Dee Williams does the voice for his character, Lando, but unfortunately, while Luke Skywalker does makes an appearance, he is not voiced by Mark Hamill.

The game play is available in two modes — single and multiplayer. The better of the two is multiplayer. In this version, you can play offline against computer controlled bots of varying intelligence or you can play online against other players in games such as Capture the Flag.

The biggest problem with *Jedi Outcast* is the CD, in that it does not allow for the installation of the game! The first CD I tried repeatedly froze during installation. A second CD also failed. As did a third. So how did I install the game? I (1) yanked out my CD drive, (2) temporarily



replaced it with a CD drive from another computer, which did not allow me to install the game, but at least let me copy the files to my hard drive, and finally, (3) installed the game from my hard drive.

Now I have to restore the CD drives to their respective computers and clean up my hard drive; a task the Force, unfortunately, is not equipped to help me accomplish. ♦

Starfighter tries to live up to X-Wing Alliance

By CHRIS TALBOT

The many fond memories of playing LucasArts' *X-Wing*, *TIE Fighter* and *X-Wing Alliance* had me waiting on the edge of my seat for *Star Wars: Starfighter*, the new space combat simulation game set during the time of *The Phantom Menace* (with *Attack Of The Clones* mere weeks away, I'm curious why LucasArts waited so long to release a game like this).

What I found didn't live up to my expectations, but *Starfighter* is still a good game in many ways. Players get the chance to fly the yellow Naboo fighter seen in the space battle scenes of *The Phantom Menace*, a hyper-maneuverable ship with two top-mounted wings and a third ventral wing known as The Guardian Mantis, and an experimental bomber called The Havoc.

The first mission in the game is a training mission for a new Naboo pilot. Unfortunately, the level is a canyon run that seems ripped right out of the old *Rebel Assault* game, the worst of the *Star Wars* piloting games. As Rhys Dallows, you fly through the canyon shooting at target mines and shooting it out with holographic starfighters. Unfortunately, the speed of the starfighter had me bouncing off canyon walls to Rhys's inevitable death. Riding the brake was necessary to get through this.

Jump into space and go head to head with more holographic starfighters in another training mission. Now this is more reminiscent of the *X-Wing* games I fell in love with. There are few ship control panels, however, so the amount of control over weapon, shield and power systems is

much lower than in *X-Wing*.

The graphics and sound are awesome. I noticed while flying through the canyon that when you shoot the canyon wall or the ground, the blasts leave holes. Very nice.

Players of *Starfighter* are treated to 14 missions (plus bonus missions) spanning three worlds. You get the chance to play three heroes — Dallows, a Trade Federation pilot named Vana Sage, and a greedy alien pirate known as Nym. Each one has their own reasons for joining the fight against the Trade Federation to rescue Naboo from oppression.

The game can be played with a mouse and keyboard combination or with a joystick/gamepad. The learning curve is very low, especially if you've played any of the *X-Wing* series of games before. Even if you haven't played games like this before, the controls are fairly easy to learn.

Noticeably missing from the game is a multiplayer function. Players are unable to go head to head on the Internet or on an intranet. This is a shame, really. The multiplayer options in *X-Wing Alliance* were a blast. My guess is LucasArts is focusing their multiplayer efforts on the soon-to-be-released *Star Wars Galaxies* online game. Still, a multiplayer option would have given fans extra incentive to buy *Starfighter*.

Even though *Starfighter* has its flaws, it's still a good game. *Star Wars* computer gaming fans will want to add this to their collection. It'll give them something to chew on while they're waiting for the May release of *Attack Of The Clones*. However, it's definitely not worth lining up for four months to play it. ♦

more INFO

Star Wars Jedi Knight II: Jedi Outcast
\$69.99
LucasArts
www.lucasarts.com



Requirements:
Windows 95/98/ME/2000/XP
Pentium II 350MHz
64MB RAM, 128MB for Windows 2000 or XP
16MB graphics card

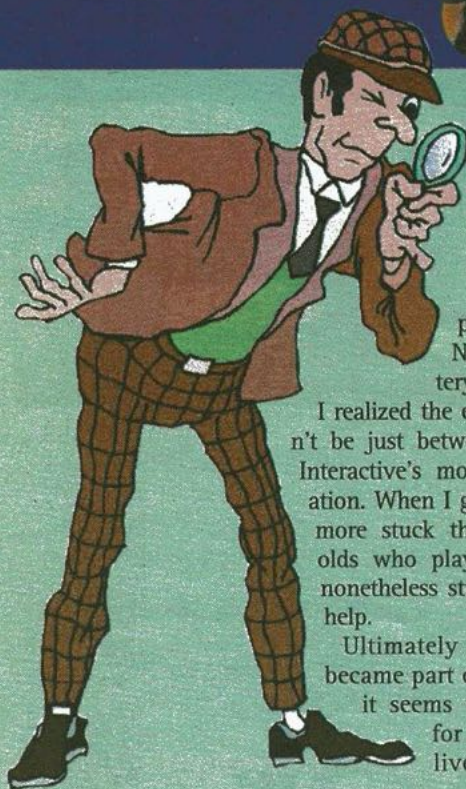


more INFO

Star Wars: Starfighter
\$59.99
LucasArts
www.lucasarts.com



Requirements:
Windows 95/98/ME/2000/XP
Pentium II 350 MHz or equivalent Athlon
processor
64 MB of RAM
580 MB of free hard disk space plus 100 MB of
free space for saved game files and Windows
swap file
DirectX 8-compatible 16 MB video card
16-bit soundcard
4x CD-ROM drive



Get magnifying glass, start sleuthing ...

By MARA GULENS

As I started playing the latest Nancy Drew mystery, *The Final Scene* I realized the experience couldn't be just between me and Her Interactive's most excellent creation. When I got stuck — likely more stuck than the 10-year-olds who play the game, but nonetheless stuck, I sought out help.

Ultimately the Internet became part of the event — as it seems to do nowadays for so much in our lives. I started

"googling" and was soon drawn into Nancy's world — and found places where young detectives hang out and discuss the cases they're working on.

The most unique site was the message board at www.her-interactive.com. Brimming with excitement, experience and frustration, it's a place players post questions on the mystery they're currently solving. Girls can also enroll at the "Cyber Nancy Drew Detective School" and study topics like "Spying," "How To Solve a Mystery" or "Science: How to Dissect a Mystery." Anything, for that matter, that "helps our detective skills." That the site is run by the company that creates the game is irrelevant. It's a wonderful place and rises to the Nancy Drew challenge.

Although surfing the Net is like solving a mystery all the time (you're always thinking, pursuing leads and researching extensively) there are many interesting sites aimed at wannabe detectives and agents.

www.fffbi.com

The Fin, Fur and Feather Bureau of Investigation pro-



vides a fun, interactive mystery for kids, while at the same time encouraging them to brush up on day-to-day computer skills, such as searching for information on the Internet, printing pages and solving puzzles.

The plot line is goofy — you have to uncover what kind of weird genetic mixing is being planned for chickens — but it has enough interesting twists to keep kids clicking from page to page. The plot line gets presented in a series of memos from various agents and the player has to keep proving him- or herself to keep the job.

kids.MysteryNet.com

Mystery Net for kids has kids read a simple mystery — and then try to solve it. Solutions posted! There are also some mysteries written by kids for kids, as well as magic tricks. No interactivity here, but good for kids who enjoy solving mysteries.

tqjunior.thinkquest.org/5109/index.html

Start out with the basics: What's a mystery, what's a red herring, what's a suspect? Now move on to the two featured mysteries and start sleuthing. The site also offers would-be mystery writers a chance to try out their own hand and to read about the greats that went before them.

www.eyetricks.com/0101.htm

This one's all in the eyes ... but you'll feel like you have to do some hard sleuthing to understand what's what. Have a look at the 12 optical images, rub your eyes, readjust your glasses and keep guessing.

www.thunk.com

Here's a site for kids who want to live like detectives. At Thunk.com they can input text and then scramble it. Copy and paste the message into an e-mail and then let the recipient know where to go in order to retrieve the original. (I'm thinking there's got to be some way to decipher the Thunk code — and I'm sure some child will rise to the challenge.)

www.odci.gov/cia/ciakids

The CIA for kids site sets up even greater code-breaking challenges and gives a little background on the Enigma, an electromechanical machine used by the Germans during World War II, which offered 150,000,000,000,000,000,000 possible solutions. Yes, the code was eventually broken! Also on view — items from the CIA museum, including the matchbox camera and the silver dollar hollow container.

www.fbi.gov/kids/k5th/kidsk5th.htm

This site is for kids in kindergarten to grade five. Learn what the FBI does, learn about general safety and safety on the Internet specifically, get an introduction to various working dogs. Play some games, the best being Special Agent Undercover, where you get to choose Special Agent Bobby Bureau's disguise. ♦

What's a site you'd recommend for kids? Let me know at maragulens@yahoo.com.

Retreating in time with Nancy Drew

By MARA GULENS

It's a strange experience reviewing a modified version of an integral component of your childhood. You forget how old you are. You think about the ways you differ from your successors. And you notice how technology distorts reality and mucks with history and time, and reminds you all over how old you've become.

When I was little, I loved Nancy Drew mysteries. I remember to the detail the events surrounding the purchase of my first book (enroute to the cottage; Peterborough; 1973), the title (*Password to Larkspur Lane*) and the way those hand-drawn images scared the living daylight out of me.

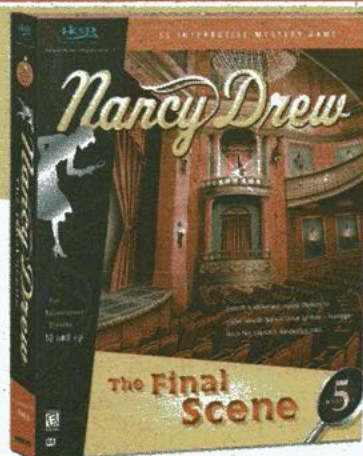
Fast forward 30 years, and almost 70 since the launch of the first title: Girls 10 and up now have access to Nancy Drew computer games. Nancy Drew used to be all about mystery and drama; these games take that suspense to the next level, putting players in Nancy's shoes — and having them crack the case.

In my day, you read about

Nancy descending a secret staircase; nowadays you go down yourself. Way back when, it was words on the page that made the reader snap the cover shut and take a deep breath; now it's the click of a mouse and a voice booming from the speakers.

The Final Scene is Her Interactive's fifth foray into the Nancy Drew world, and boy, do they have it down. The plot is terrific, the environment has all the secret passageways, hidden rooms and switches to make it exciting, mysterious and frightening, and the tone is as "Nancy" as I remember it.

This one involves an old high school pal of Nancy's who gets kidnapped while conducting an interview in St. Louis' Old Palladium Theatre. It's a beautiful theatre, complete with velvet cur-



tains, wood and antiques and an attention to detail that really brings the environment to life.

Since the current owners are intent on demolishing the theatre to make way for a new building, Nancy must rescue her friend before the three days are up. The kidnapping makes the front page of the local newspaper and now it really gets interesting. Is Nancy's friend's disappearance related to the impending demolition? And what does the infamous Henry Houdini have to do with the events of today?

The Final Scene is an interactive role-playing game, but unlike games like *Harry Potter and the Sorcerer's Stone*, where you glide through the environment, here it's done with mouse clicks. And unlike Harry, here we never get to



Get The Edge

COMPUTER EDGE

Where Service Is The Difference!

Mon-Fri: 10am-7pm • Saturday: 10am-6pm • Sunday - Etobicoke Only

SECURE SHOPPING ONLINE!

EdgeWorld

www.edgeworld.net

ON SITE SERVICE & NETWORK SOLUTIONS AVAILABLE

- Wiring (PC, Phone & Fibre Optic)
- Internet & Printer Sharing
- Home & Office Setup
- Lan's to Wan's

Call
Etobicoke Store For Details
(416) 252-4868

Hard Drives

5400RPM UDMA66/100	
20GB Ultra-100 EIDE	\$109.83
40GB Ultra-100 EIDE	\$129.83
60GB Ultra-100 EIDE	\$149.83
80GB Ultra-100 EIDE	\$189.83
120GB Ultra-100 EIDE	\$299.83
160GB Ultra-100 EIDE	\$409.83

7200RPM UDMA100	
20GB Ultra-100 EIDE	\$124.83
40GB Ultra-100 EIDE	\$139.83
60GB Ultra-100 EIDE	\$179.83
80GB Ultra-100 EIDE	\$229.83
100GB Ultra-100 EIDE	\$289.83
120GB Ultra-100 EIDE	\$319.83

SCSI:	
18.2GB U2W 7200RPM	\$299.83
18.2GB U2W 10000RPM	\$329.83
36GB U2W 10000RPM	\$539.83
73GB U2W 10000RPM	\$1099.83

Motherboards

ASUS:	
P4S 333 Socket 478 AGP Intel i845 DDR	\$169.83
P4B Socket 478 AGP Intel i845 3 Dimm	\$189.83
P4B 266 Socket 478 AGP Intel i845 DDR	\$239.83
P4T-E Socket 478 Intel i850 4 Dimm	\$249.83
A7A266 Socket A, ALI UMDA100	\$149.83
A7M266 Socket A, AMD761 DDR	\$179.83
A7N266 Socket A, Nvidia nFORCE 420 DDR	\$249.83
A7V266-E Socket A, Via K266A DDR	\$229.83
A7V333-E Socket A, Via KT333 DDR	\$269.83

ABIT:	
KG7-RAID, Socket A, AMD761 DDR w/raid	\$179.99
K7A-133, Socket A, KT266A DDR	\$199.99
K7A-133 RAID, Socket A, KT266A DDR w/raid	\$229.99
BL7, Socket 478, Intel i845 SDRAM	\$199.99
BL7-RAID, Socket 478, Intel i845 SDRAM w/raid	\$219.99
B07-RAID, Socket 478, Intel i845 SDRAM w/raid	\$229.99
TH7J-RAID, Socket 478, Intel i850 w/raid	\$269.83

EGS:	
K7SA S15735 2DDR 266 FSB w/LA	\$39.83
K7SEM S157302 DIM 266 FSB w/LA	\$39.83
K7V T60 VIA S366 3DDR 266 FSB w/LA	\$129.83
P4 SISA S15845 2DDR w/LA	\$139.83
L455MG S15844 2DDR w/LA	\$149.83

Modems & Routers

Modems:	
Motorola 56K V.92 PCI Voice/Fax Modem	\$24.83
A-Open SM56K V.90 PCI Voice/Fax Modem	\$29.83
A-Open PM56K V.90 PCI Voice/Fax Modem	\$49.83
A-Open 56K V.90 ISA Voice/Fax Modem	\$69.83

USRobotics:	
56K V.90 PCI Voice/Fax Modem	\$89.83
56K V.90 External Fax/Data Modem	\$139.83
56K V.90 External Voice/Fax Modem	\$239.83

Linksys:	
BEFSR11 Port Cable/DSL Router	\$109.83

System Specials



"17"
SVGA
Monitor
Included!

All this for only
\$54/month
OAC

\$1299.83

Now Shipping
with Windows
XP

Intel Pentium 4 Motherboard
256MB PC 266 DDR Ram
Nvidia G-Force2 64MB AGP Video Card
40GB UDMA100 Hard Drive
104Key Windows'98 PS/2 Keyboard & Mouse
1.44MB Floppy Drive
16x10x40 CD-RW Drive
168K Stereo Sound Card
230W Stereo Speakers
MS Windows XP Home
56K V.90 PCI Voice/Fax Modem
10/100 Network Card

Pentium 4 - 1.6Ghz

UPGRADE TO:	
P4 1.8Ghz add	\$99.83
P4 1.9Ghz add	\$179.83
P4 2Ghz add	\$329.83

Edge PC 1000

- Elegant Mid Tower ATX Case
- Intel Pentium 4 Motherboard
- 128 MB PC 266MHz DDR RAM
- 20GB UDMA100 Hard Drive
- 32 MB AGP Video Card
- 104 Keyboard & Mouse
- 52X Int CD-ROM Drive
- 52X Int CD-ROM Drive
- 16 Bit Stereo Sound
- 120 Watt Stereo Speakers
- 56K V.90 Voice/Fax Modem
- 10/100 Network Card

Intel Pentium 4 - 1.6Ghz	\$729.83	or	\$21/month
Intel Pentium 4 - 1.8Ghz	\$829.83	or	\$23/month
Intel Pentium 4 - 2 Ghz	\$1029.83	or	\$21/month

Edge PC 2000

- Elegant Mid Tower ATX Case
- 256 MB PC 266MHz DDR RAM
- 40 GB UDMA133 Hard Drive
- Nvidia G-Force2 64MB AGP Video Card
- 104 Keyboard & Mouse
- 52X Int EIDE CD-ROM Drive
- 16 Bit Stereo Sound
- 120 Watt Stereo Speakers
- 56K V.90 Voice/Fax Modem
- 10/100 Network Card

AMD XP 1700 Plus	\$859.83	or	\$26/month
AMD XP 1800 Plus	\$899.83	or	\$27/month
AMD XP 1900 Plus	\$999.83	or	\$28/month
Intel P4 - 1.6Ghz	\$899.83	or	\$30/month
Intel P4 - 1.8Ghz	\$999.83	or	\$30/month

Edge PC 3000

- Elegant Mid Tower ATX Case
- 512 MB PC 266MHz DDR RAM
- 60GB UDMA133 7200RPM Hard Drive
- ATI Radeon 7500 64MB DDR w/TV OUT Video Card
- 104Key Keyboard & Mouse
- 16X EIDE-DVD Drive
- Soundblaster AUDIODY 5.1 Sound Card Card
- 800W Stereo Speakers w/ Sub Woofer
- 56K V.90 PCI Voice/Fax Modem
- 10/100 Network Card

Intel Pentium 4 1.6 Ghz	\$1299.83	or	\$37/month
Intel Pentium 4 1.8Ghz	\$1399.83	or	\$39/month
Intel Pentium 4 2 Ghz	\$1859.83	or	\$40/month
AMD XP 1700	\$1299.83	or	\$44/month
AMD XP 1800	\$1399.83	or	\$44/month
AMD XP 2000	\$1499.83	or	\$44/month

DO-IT-YOURSELF UPGRADE!

Packaged & Ready to Pick Up Today!

- INCLUDES:
- New P4 Case with 300W p/s
 - P4 Motherboard w/ i845 Chipset
 - Intel P4 1.6 Ghz CPU
 - 256 MB PC266 DDR Ram
 - 10/100 NIC
 - 3D Sound



\$549.83

CUSTOM CONFIGURATIONS AVAILABLE...BEST PRICES IN TOWN!
1000'S MORE COMPONENTS & SYSTEMS AVAILABLE
IN STORE & ON-LINE www.edgeworld.net

CD-Roms

52XEIDE CD-Rom Drive	\$44.83
16x10x40 EIDE CDRW-Drive	\$79.83
16x10x40 EIDE CDRW-Drive	\$109.83
24x10x40 EIDE CDRW-Drive	\$129.83
32x10x40 EIDE CDRW-Drive	\$149.83
PlexorPlexwriter 24x10x40 CDRW Drive	\$224.83
PlexorPlexwriter 40x12x40 CDRW Drive	\$279.83
Pioneer DVR-A03D 2x DVD-RW/8XCDDRW	\$649.83

VideoCards

ATI:	
Xpert98 8MB SDRAM AGP	\$39.83
Xpert2000 Pro 32MB SDRAM AGP	\$59.83
ATI Radeon 7000 64 MB SDR AGP	\$89.83
ATI Radeon 7500 64 MB DDR TV Out	\$139.83
ATI Radeon 8500LE 64 MB DDR DTV TV Out	\$249.83
ATI Radeon 8500 128MB DDR TV Out	\$339.83
All-In-Wonder Radeon 7500AGP 64MB DDR	\$249.83
All-In-Wonder Radeon 8500 64MB DDR	\$479.83

NVIDIA:	
GeForce 2 MX 200 32MB SDRAM AGP	\$79.83
GeForce 2 MX 200 32MB SDRAM AGP w/TV Out	\$89.83
GeForce 2 MX 400 64MB SDRAM AGP	\$99.83
GeForce 2 MX 400 64MB SDRAM AGP w/TV Out	\$109.83
GeForce3 Ti200 128MB DDR w/TV Out	\$269.83
GeForce 4 MX 440 64MB DDR w/TV Out	\$169.83
GeForce 4 Ti 4400 128MB DDR w/TV Out	\$469.83
GeForce 4 MX 4600 128MB DDR w/TV Out	\$599.83

Networking

Cards / Adapters:	
ISA / PCI 10/100 NE2000 NIC	\$14.83
Link 538TX PCI 10/100 NIC	\$24.83
3Com 905TX PCI 10/100 OEM NIC	\$54.83
LinkSys USB-RF45 10/100 Adapter	\$39.83
LinkSys PCMCIA 10/100 NIC	\$79.83
Link Dwl-650 Wireless PCI 11MB	\$179.83
Link Dwl-650 Wireless PCMCIA 11MB	\$139.83
Dwl-1000 AP Wireless Access Point	\$249.83
Hubs:	
5 Port 10MB	\$29.83
5 Port 10/100MB	\$59.83
8 Port 10MB	\$39.83
8 Port 10/100MB	\$99.83
16 Port 10MB	\$99.83
16 Port 10/100MB	\$229.83

Sound Cards

Creative Labs:	
Soundblaster PCI 128 OEM	\$29.83
Soundblaster "Live" Value 5.1 OEM	\$54.83
Soundblaster Audigy Value OEM	\$109.83
Soundblaster Audigy Platinum Retail	\$269.83
Soundblaster Extigy Retail	\$214.83
Soundblaster Audigy Platinum EX Retail	\$344.83
16Bit PCI/ISA Stereo Sound Card	\$19.83

SAVE \$ - BUY USED

DELL USED MONITORS

Get them while they last	
17" as low as	\$99.00
19" as low as	\$149.00
20" as low as	\$179.00
21" as low as	\$199.00

DELL USED COMPUTER

P2-450 128MB, 6.4 GB, CD, NIC, Sound, K/B, Mouse	
Save Big!	\$399.83

DELL USED COMPUTER

P2-266 64MB, 3.2 GB, CD, NIC, Sound, K/B, Mouse	
Save Big!	\$199.83

DELL USED COMPUTER

P2-300 64MB, 4.3 GB, CD, NIC, Sound, K/B, Mouse	
Save Big!	\$249.83

DELL USED COMPUTER

P3-500 128MB, 10 GB, CD, NIC, Sound, K/B, Mouse	
Save Big!	\$499.83

DELL USED COMPUTER

Xeon 550 128MB, 10 GB, CD, NIC, Sound, K/B, Mouse	
Save Big!	\$549.83

BLOWOUT DEALS!!!

50 CD SPINDLE

New Low Price	\$19.83
---------------	---------

Biggest Bang For The Buck!!!

HARD DRIVE 40 GB 7200 RPM Ultra - 133 Speed & Size!!!	\$139.83
--	----------

CD-RW

16X10X32 Limited Quantities Internal EIDE	\$99.83
--	---------

BLUE THUNDER

Compact Flash Cards	
Available in 32MB 64MB and 128 MB sizes	
High Performance data transfer rates	
Compliant with Compact Flash Association standards	

New to Computer Edge!

32MB	\$39.83
64MB	\$59.83
128MB	\$129.83

Nvidia G-Force 4

MX 440 64 MB DDR With TV/Out	\$169.83
---------------------------------	----------

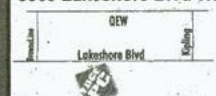
BLUE THUNDER

Mini Drive (USB Drive)	
For use with Win98/ME, Win2000, Win XP, Mac OS 9.0+, Linux	
Portable, digital storage	
Key chain sized	
Fast and easy to use	
Stores all file types	

New to Computer Edge!

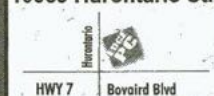
32MB	\$79.83
64MB	\$99.83
128MB	\$169.83
256 MB	\$259.83

Etobicoke
3369 Lakeshore Blvd W.



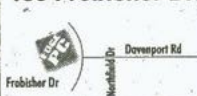
Phone (416)252-4868
Fax (416)252-1475

Brampton
10069 Hurontario St.



Phone (905)840-0902
Fax (905)840-3710

Waterloo
100 Frobisher Dr.



Phone (519)725-3775
Fax (519)725-9404

Oakville
2387 Trafalgar Rd Unit E.



Phone (905)257-0082
Fax (905)257-1302

Mississauga
55 Dundas St E Unit 2



Phone (905)281-3893
Fax (905)281-3895

The Computer Edge is not responsible for misprinted text or typographical errors. All Logo's are trademarks of their respective owners. All prices are 3% cash discounted. Leasing rates quoted are approximate and based on first and last month's advance payment. Please call ahead for stock levels and to reserve your order. All applicable taxes are extra. Prices subject to change without notice and may vary by geographic location.

TC GTA May 2002

Retreating in time with Nancy

continued from page 58

see what Nancy looks like.

The cursor becomes a magnifying glass, and as you move it over the screen it becomes red, or "hot," when there's something to investigate. It could also take you to a secret passageway, let you pick up clues or help you quickly hide from the police.

I've played other Nancy Drew games, so starting this one I was wiser. Before I even started sleuthing, I walked around the theatre to get my bearings – and drew a map.

During the investigation, you get to

talk to people and listen in on conversations. In a way it seems you can take Nancy out of the book, but you can't take the book out of Nancy. Skip anything and you'll lack the crucial clues necessary to move on.

Hundreds of girls have played this game. Apparently www.herinteractive.com, where girls go for case-cracking tips, has 10,000 registered users. Reading the message boards was where the generational dislocation really kicked in. I loved playing the game – but it was hellishly hard! I did stupid things, like not getting to the closet quickly enough to hide from the police or not leaning

far enough over the balcony to retrieve a clue and having to return, oh, 20 times ... just like any other detective.

Nancy Drew fans of all ages will enjoy the game, but young girls will get the biggest kick out of what is intended for them.

At one point I got so stuck I called my editor and said the case was taking longer than expected ... I turned to Her Interactive for help and scoured the Web for detectives who could bail me out. One Nancy Drew angel (sources shall remain unnamed) sent me a saved file with the problem solved and I was back on track.

Her Interactive's motto is "for girls who aren't afraid of a mouse." I'd like to propose another one: For girls who aren't afraid. Period. ♦

more INFO

Nancy Drew: The Final Scene
\$29.99
Her Interactive
www.herinteractive.com

Requirements:
Pentium 166 MHz or faster
Windows 95/98/ME/XP
8X CD-ROM, 16 MB RAM, 150 MB hard drive
space, video card and sound card, 16-bit
DirectX 7.0 (or higher) compatible colour
graphics, mouse and speakers



Infonec

Computers

Office 205

ECS K7S5A ATX MB
SiS735 Chipset
On board Sound and Lan
128MB PC-133 SDRAM
WD 40G UATA100 HD
ATI Xpert2000 Pro 32M AGP
LG 52X CD-Rom
INTEL 56K DTV PCI WinModem
PANASONIC 1.44M Floppy
Medium ATX Case w/300W
Windows98 104 PS/2 KB
LOGITECH 2 buttons PS/2 Mouse
Stereo Speakers

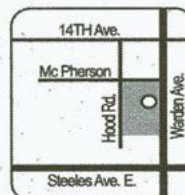
Duron 1.0GHz ----- \$589
Duron 1.3GHz ----- \$619
TB 1.4GHz ----- \$659
XP1600+ ----- \$685

Supreme 305

MSI 6380E KT3 Ultra MB
VIA KT333 Chipset
Onboard Sound
256MB PC2100 DDR SDRAM
MAXTOR 40G U133 7200rpm
ATI Radeon 7000 64MB SDR AGP
LG 52X Int. CD Rom
ALTEC LANSING AVS300W Subwoofer
3COM V.90 DF PCI Winmodem
PANASONIC 1.44M Floppy
Medium ATX Case w/300W
MICROSOFT Internet KB
LOGITECH Wheel Mouse
MICROSOFT Windows XP Home

XP1700+ 1.47GHz -- \$1039
XP1800+ 1.53GHz -- \$1055
XP1900+ 1.60GHz -- \$1099
XP2000+ 1.67GHz -- \$1199

MARKHAM
505 Hood Road, Unit 13
Markham, ON L3R 5V6
TEL: 416-410-5481
FAX: 905-305-6807
Mon-Fri 10:00-7:30
Sat 10:00-5:00



Government & Company PO are welcomed Leasing & Financing are available upon request

416-410-5481

www.infonec.com

sales@infonec.com

Home 405

ASUS TUSI-M MB
SiS 630ET Chipset MicroATX
Onboard Sound, Video, Lan
256MB PC-133 SDRAM
WD 40G UATA100 HD
LG 52X CD Rom
AOPEN 56K DTV PCI Winmodem
PANASONIC 1.44M Floppy
Medium ATX Case w/300W
MICROSOFT Internet KB
MICROSOFT Wheel Mouse
Medium Stereo Speakers

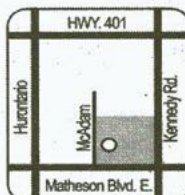
Celeron 1.0AGHz ----- \$609
Celeron 1.1AGHz ----- \$629
Celeron 1.3AGHz ----- \$649
Pentium3 1.13GHz ----- \$729

Pentium 4

ASUS P4B266 ATX MB
Intel 845D Chipset
Onboard Sound, USB2.0
256MB PC2100 DDR
MAXTOR 40G 7200rpm HD
ASUS V7100 MX400 32M Pure
LG 24x10x40 CDRW
ALTEC AVS300W Subwoofer
PANASONIC 1.44M Floppy
P4 ATX Case w/300W
MICROSOFT Internet KB
MICROSOFT IntelliMouse
MICROSOFT Windows XP Home

Intel P4 1.7GHz ----- \$1229
Intel P4 1.8GHz ----- \$1269
Intel P4 1.9GHz ----- \$1339
Intel P4 2.0GHz ----- \$1419

MISSISSAUGA
400 Matheson Blvd. E., #6
Mississauga, ON L4Z 1N8
TEL: 416-410-5481
FAX: 905-507-8141
Mon-Fri 11:00-7:00
Sat 10:30-3:30



SPECIALS CORNER

SAMSUNG 955DF
19" .20 1600 Flat

\$365

ABIT AT7 AMD MB
KT333 Audio Lan

\$239

256M DDR RAM
PC2100 266FSB
\$95

MOTHERBOARDS

ASUS AT7333R \$199/229
ASUS P4B266/P4S333 \$225/149
ASUS P4T-EP4B \$239/199
ASUS AT7N266-E \$209/249
ASUS AT7N266-E/AA/RAID \$195/215
ASUS TUV4X/UTSL2-C \$129/159
ABIT AT7H/5X7-533 \$239/149
ABIT T7H/RAID BD7 \$225/255/199
ABIT KT7A-133RAID \$175/199
ECS K7S6A/K75A \$119/95
EPOX EP-8K3A/RKHA+ \$205/169
INTEL D850M/D845BG \$239/209
MSI 6380E KT3 Ultra IARU \$159/205
MSI 845Ultra/RAID200 \$229/249
TYAN S188A/Sec2/S207T/DP3 \$139/195
TYAN Tiger/MPX DualAMD \$355

CPU & RAM

INTEL
PIV 2.4G/2.2G/2.0G (512K) \$915/859/459
PIV 1.9G/1.8G/1.7G (512K) \$369/299/265
PIV 1.6G/1.4G/1.3G (512K) \$309/229
PIV 1.2G/1.1G/1.0G (512K) \$249/199/175
Celeron 1.3A/1.2A/1.1A (256K) \$115/129/119
Celeron 1AG/1.0G/950 (128K) \$115/129/119
AMD
MP2000+/MP1900+ \$459/359
MP1800+/MP1600+ \$305/275
XP2100+/2000+ \$429/329
XP1900+/1800+/1700+ \$235/195/175
Duron 1.3GHz/1.2GHz/1.0GHz \$139/105/85
Duron 950/900/850 \$75/72/70
RAM
PC-800 RIMM .512/256/128 \$ Check on web
PC333/PC266 DDR .512/256/128 \$ Check on web
PC-133/PC-100 .512/256/128 \$ Check on web

ACCESSORIES

LOGITECH Cordless Freedom \$79
LOGITECH Cordless Freedom Optical \$125
LOGITECH Wheelmouse Optical \$39
LOGITECH Cordless Mouseman Optical \$75
MICROSOFT Natural Pro retail \$85
MICROSOFT Wise Explorer retail \$89
MICROSOFT IntelliOptical retail \$89
WACOM Graphire2 4x5 Tablet \$135
WACOM Intuos2 4x5 Tablet \$289

HARD DRIVE

MAXTOR
60160 (7200, U133) \$199/159
40120 (7200, U133) \$129/115
1601120 (5400, U133) \$449/339
1601120 (5400, U133) \$449/339
ATLAS 10K3 73G / 36G \$1095/495
ATLAS 10K3 18G/ATLAS V 18G \$319/275
WESTERN DIGITAL
120/100/80 (7200, U100) \$319/299/229
60/40/20 (7200, U100) \$175/139/129
80/60/40 (5400, U100) \$209/179/115
IBM
120G/80G (7200, U100) \$389/229
60G/40G (7200, U100) \$175/145
73G/36G (U160, 15K, 4M) \$1249/869
36/18/9 (U160, 10K, 4M) \$629/339/309
SEAGATE
Barracuda ATA IV 80/60/40 \$209/165/135
Cheetah X15 36/18G (U320 4M) \$779/469
Cheetah 73/36/18 U160 \$1075/499/319
Barracuda 181G U160 \$2299
Barracuda 36/18G U160 \$449/275
LACIE
Storage Products Call for Prices

CONTROLLERS

ADAPTEC
RAID ATA1200A/SCSI 2100S \$139/855
39160 KIL \$535
29160 KIL / 29160 KIL \$455/419
19160 KIL \$345
2906 / 2930U KIL \$85/139
TEKRAM
DC380U3W U2B KIL \$289/179
DC385U KIL \$75
PROMISE
FastTrak TX2000 U133 RAID Pro \$169/355
Ultra133 / Ultra100 Tx2 KIL \$75/53
FastTrak100 Tx2/TXA \$139/235
FastTrak100 Tx2 Pro/66 Pro \$299/269
SuperTrak SX8000 6-Ch Raid 5 \$495
LAVA
USB 2.0 / 1.1 Dual Ports-PCI \$79/39
USB 2.0/Firewire ext. box \$119/119
IOGEAR
GGS12 2 ports KVM PS/2 w/cables \$179
GGS84 4 ports KVM PS/2 w/cables \$285
BELKIN
OmniView 4 ports KVM PS/2 \$129

VIDEO CARDS

ATI
Radeon 8500 12M DDR \$399
Radeon 8500LE 128M DDR \$279
Radeon 8500DV 64M DDR \$479
Radeon 8500 64M DDR \$249
Radeon 8500LE 64M DDR DVI \$299
Radeon 7500 64M DDR DVI \$125
Radeon 7000 64M SDR w/TV \$85
Xpert2000Pro 32M AGP \$55
TV Wonder PCI/USB \$89/129
DV Wonder PCI Firewire \$69
ASUS
V8460 GF4 T4600 128M \$615
V8440 GF4 T4400 128M \$465
V8170 MX440 64M TVout \$175
V7700 GF2 TIVX 64M Deluxe/ Pure \$215/175
V7100T GF2 MX400 64M SD \$119/135
V7100T GF2 MX400 32M SD \$95/109
ABIT
Siluro GF4 T4600 128M Call
Siluro GF4 T4400 128M Call
Siluro GF4 MX400 64M DDR \$179/Call
Siluro MX400/T 64M AGP \$125/105
Siluro MX200T 32M AGP \$75/89
MAXTOR
G550 32M DDR DualHead \$155
G450 32M DDR DualHead \$145
G450 32M DDR DualHead \$145
3DLabs
Oxygen Vx-1 32M AGP4X \$285
Oxygen GVX1 32M \$629
Oxygen GVX1 Pro 64M \$1249
VISIONTEK
XTASY GF4 T4600 128M \$585
XTASY GF4 T4400 128M \$425
XTASY GF4 MX440 64M \$225
XTASY GF4 MX420 64M \$179

MODEMS

3COM
V90 56K D/F Hardware \$70
V90 56K D/F Winmodem \$42
V90 56K D/F Winmodem \$37
ACOM
V90 56K D/F Hardware ISA \$69
V90 56K D/F PCI PM \$45
V90 56K D/F PCI Winmodem \$29
INTEL/MOTOROLA
V90 56K D/F Winmodem PCI \$23

MULTI-MEDIA

CD ROM DRIVE
AOPEN 56X \$49
ASUS/SONY/LG 52X \$49
DVD ROM/RW DRIVE
LG/LITEON 16X DVD IDE \$75
SAMSUNG 16X DVD IDE \$75
TOSHIBA 16X DVD IDE \$79
SONY 16X DVD \$79
PIONEER 16X DVD IDE \$85
PIONEER 16X DVD IDE \$599
CD-RW DRIVE
ASUS 16x10x40 CDRW IDE \$115
LG 24x10x40 CDRW IDE \$119
LG 32x10x40 CDRW IDE \$135
AOPEN CRW240 \$105
AOPEN CRW3240 \$135
SONY 24x10x40 CDRW IDE \$129
PLEXTOR 24x10x40 IDE KIL \$199
PLEXTOR 40x12x40 IDE KIL White \$235/269
YAMAHA CRW3200EVK \$175
LITEON 40x12x40 CDRW \$159
SOUND CARD
SB Audigy Platinum/EX \$269/339
SB Exigy USB Ext. \$209
SB Audigy MP3+Camera/Oem \$139/139/99
SB Live 5.1/128/16 \$50/35/29
HERCULES Theatre XP \$199
HERCULES Fortissimo II \$69
HERCULES Muse XL \$49

SPEAKERS

ALTEC LANSING
2100A/1000E/1641 \$119/175/152/29
AVS200/300/500 \$25/45/65
ATP5W/ATP4 \$89/169
CAMBRIDGE
Inspire 5.1/Digital/5.1/4.1 \$375/129/79
Inspire 2/FireWire 1 \$79/55
FPS1600/2000/Digital \$79/189
YAMAHA
M101W/M501/1A40W/TSS-1 \$35/65/65/265

PALM

Palm M100/M105 \$149/209
Palm M125/M130 \$279/399
Palm M500/M515 \$429/555
Palm IIIc \$429
Accessories Call

MONITORS

VIEWSONIC
E70 17" 24h 1280 \$235
E70F 17" 21h 1280 Flat \$259
E75F 17" 21h 1600 Flat \$285
G75F 17" 25Ag 1600 Flat \$309
G90F 19" 21h 1600 Flat \$449
PF790 19" 25-27Ag 1600 Flat \$499
P95F 19" 25-27Ag 1920 Flat \$1049
P220F 22" 25Ag 1600 Flat \$569
VE150 15" 1024 TFT LCD \$1029
VE170 17" 1280 TFT LCD \$1539
SONY
E240G220R/G220S 17" 24 \$399/449/495
G410R/420S 19" 24 1800 \$599/819
E40/G520P 21" 24 \$599/1195
F520 21" 22Ag 2048/865 \$2435
M51A/M61A/LCD Panel \$699/1215/1759
SAMSUNG
750S 17" 27 1280 \$205
753DF 17" 20h 1280 Flat \$235
950B 19" 26 1600 \$329
955DE 19" 20h 1600 Flat \$365
151S 15" 29 1024 TFT LCD \$695
171S 17" 28 1280 TFT LCD \$1025
DAEWOO/DAYTEK
L100 15" 30 1024 Black LCD \$565
905DF 19" 25 1600 Flat \$369
NEC
LCD 1550V 15.1" 1024 \$565
LCD 1700V 17" 26 1280 \$959
LCD 1850E 18.1" 28 1280 \$1229
LG Electronics
E700B 17" 25 1280 Flat \$245
E900B 19" 25 1600 Flat \$379
915FT+ 19" 24 1800 Flat \$479
963LE 15" 30 1024 TFT LCD \$395
782LE 17" 26 1280 A/D LCD \$1009

SCANNERS

CANON 640PEX/670U/1240U \$99/139/215
EPSON 1280/1250Photo \$139/179
EPSON 1680/1650Photo \$259/335
EPSON 2450Photo/1680SE \$555/1115
HP4700C/5400C/5470C \$209/269/415
HP7400C/7450C/7490C \$645/885/1179
MICROTEK 9630/3800/4800 \$89/119/145
MICROTEK V60PL/5600 \$189/215

PRINTERS

SAMSUNG
ML1210 Laser 600dpi \$289
ML1250 Laser 1200dpi \$349
EPSON
C80/C80/C80N \$139/255/475
Photo 785EPX/C820 \$275/209
Canon 880/1280/2000P \$409/679/1155
HP
Deskjet 650C/845C/920C \$95/135/159
Deskjet 940C/960C/980C \$229/289/419
Officejet V40/PSCT750/G55X \$279/329/455
Laserjet 1000/1200/1220 \$349/579/749
Laserjet 2200D/2200DT/4100 \$1179/1399/1629
LEXMARK
Jetprinter Z25/Z35/Z45/Z55 \$79/115/149/185
E210/E320/E322 Laser \$289/435/599
BROTHER
HL120N/1440 \$315/445
HL1450/1470N \$529/705

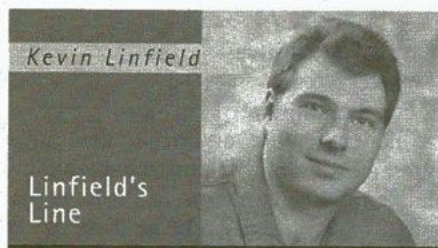
NETWORK

3COM 3C905C/TXNM \$59
AOPEN 1010M PCI \$25
DLINK D300TX 10/100 \$20
DLINK DSS-5-100S-8 Switch \$65/55
DLINK D300TX/10/100/713P \$135/195/315
LINKSYS 14/100ports RTR \$109/135/239
LINKSYS Wireless Appts RTR \$259
LINKSYS WLSPCI card \$149
LINKSYS WLSPCI card USB \$135/135
LINKSYS Phoneline RTR \$209
SMC 4ports Router w/PTR \$129/209
USR 4ports Router w/PTR \$125

UPS

APC
SurgeArrest Per7/PerT \$29/35
BackUP Office 350/500 \$115/149
BackUP Pro 280/420 \$185/289
BackUP Pro 650/1400 \$399/685
BackUP Pro 350/500 USB \$185/209
SmartUPS 1000/1500/700 \$719/929
TRIPLITE
Internet 300/525/Smart500U \$95/129/169

Game clones: Classic games reborn on the Palm



Kevin Linfield

Linfield's
Line

I recently bought this neat game for my Palm PDA. In this game, you pilot a helicopter from your base and fly into enemy territory to rescue your men who are held captive in prisons. While in enemy territory, your helicopter faces attacks from missiles, tanks, aircraft and jeeps. No, it's not the classic game *Choplifter*, but a very similar one called *Heli Rescue*. *Choplifter* is owned by Broderbund, and as far as I can tell, this game is not licensed nor was permission obtained to make a very similar game to the one I played back in 1982 on my Commodore 64.

Game clones have been around since computer games began. This clone phenomenon is quite prevalent with Palm games: I don't play *Tetris*; I play *Petra-Luna*. None of these are licensed games, so one could claim that the authors are

stealing money from the copyright holder or breaking copyright law.

Legal

Now, I'm not a lawyer (and I don't play one on TV) but when I contacted a couple of game companies, they would not give me permission to quote them or even mention their names for this article. My opinion (based on reading magazines and newspapers), is unless the author has obtained permission from the copyright holder, they are breaking the law. However, in many cases it may be impossible to obtain permission. Many companies who produced software in the '80s and '90s are no longer in business. Classic games that ran on the Atari and Commodore systems are now over 20 years old. Who do I call if I wanted to write a game similar to the one I played on my old computer system? Secondly, how close does a game have to be in order to infringe on copyright? Helicopters have been rescuing people since World War II.

Harmless?

Is cloning games harmless? Broderbund does not make any pro-

grams that run on my Palm. In fact, I'd bet that the vast majority of programs for the PalmOS platform come from shareware/freeware authors or small companies selling their wares on the Internet. So unless one of these entities makes a clone of classic games, users like me would not have the opportunity to play them on our PDAs.

No longer in business

What do you do if the company you want to contact is no longer in business? This situation has reared its ugly head with PC emulators. For example, the Atari 2600 was a very popular game machine. Yet Atari is now part of Infogrames and there is no information about older hardware or software on Infogrames's Web site. You can scour the Internet and find copies of the actual cartridge ROMs. Often, it is claimed on these sites that if you own the game cartridge you can legally have a copy of the ROM on your PC. However, I'd bet that the vast majority of people who use these ROM images do not own the game.

The wrath of giants

Although it may not always be practi-

cal for a shareware/freeware author to obtain permission to make a clone of an existing game, if you don't you may be subject to the wrath of the copyright holder. Ardiri Software (www.ardiri.com) makes games for the Palm platform. Virtually all of Ardiri's programs are clones of Nintendo or older PC games, and Nintendo for one is not happy. Many of Ardiri's games have been pulled from its Web site at the request of Nintendo. Say goodbye to *Donkie Kung* and *Maryo Bros*. Now, Ardiri has started licensing its games: Visit the site to get a licensed version of *LodeRunner* for the Palm.

Concluding remarks

Imitation is said to be the best form of flattery. If a game company is not going to produce a game for a specific market (say the PDA market) is it worth the bad press and publicity to go after a shareware writer who is asking for \$10? We're not talking super intense games like *Quake III* or *EverQuest*. Games like *Choplifter*, *PacMan*, *Galaxian*, *Tetris* and *Frogger* all have a place in my heart. And due to the effort of shareware/freeware authors, they also have a place on my Palm PDA. ♦

COMPUTER WAREHOUSE OUTLET 416-638-1662 3715 CHESSWOOD DRIVE				MON-FRI 10:30 - 7:00PM SATURDAY 10:00 - 5:00PM CHESSWOOD AND SHEPPARD 2 BLOCKS EAST OF KEELE		FOR MORE SPECIALS VISIT US ONLINE @ WWW.CWO.CA		IBM P-133 16MB 1.0GB CD \$49.99	
RCA DIRECTV SATELLITE SYSTEM 18" DISH RECIEVER REMOTE HU CARD \$199.00	IBM P-166 32MB 1.6GB CD \$69.99	P-266 DELL 64MB 4.3GB CD SOUND 33.6 MODEM \$449.99	PC-100 32MB \$18.00 64MB \$36.00	Maxtor 40GB IDE HD BRAND NEW 5400RPM \$119.99	acer 20X40X10 CD-RW REFURB. \$129.00	MOTHERBOARD & CPU COMBO BRAND NEW + AMD ATHLON 800MHZ \$174.99	MOTHERBOARD SOCKET 370 BRAND NEW PIII CELERON UP TO 1GHZ \$59.99	RCA DIRECTV INSTALL KIT BRAND NEW 75FT. CABLE 25FT. CABLE COMPASS SILICON S-VIDEO CABLE \$19.99	
KODAK Dc3200 DIGITAL CAMERA 1 MEGA PIXEL 2X ZOOM LCD \$175.99	64MB AGP VIDEO CARD NEW S3 SAVAGE 2000 WITH TV OUT \$79.99	intel. USB CAMERA MODEL Cs430 REFURBISHED \$44.99	ETHERNET 4PORT HUB \$29.99 8PORT HUB \$49.99 5PORT SWITCH \$49.99	USB 56K EXTERNAL MODEM BRAND NEW \$49.99	Panasonic 17" SVGA E70 USED \$149.99	COMPAQ 15" SVGA Mv500 USED \$79.99	HARD DRIVES USED PULLS 1.2GB IDE \$29.00 2.5GB IDE \$45.00	USB HUB 4 PORT BRAND NEW \$24.99	
EPSON C40UX COLOUR INKJET 1440 X 720 BRAND NEW \$79.99	ATX CASE BRAND NEW WITH POWER SUPPLY \$39.99	56K PCMCIA NOTEBOOK MODEM \$49.00	IBM P-133 16MB 1.2GB 2SERIAL PORTS \$31.00	10/100 NIC BRAND NEW ASOUND REALTEK \$14.99	56K MODEM BRAND NEW MOTOROLA \$19.99	50 PACK 80 MIN CD-R \$24.99	Quantum 5GB IDE HD USED \$79.99	SAMSUNG 40X CD-ROM BRAND NEW \$39.00	
SUB WOOFER SPEAKERS 3 PIECE SET \$19.99	HU LOADER UNLOOPER T6 WAVE \$99.99 KAC \$149.00	SONY 24X CD-ROM USED \$29.00	COMPAQ PII 300 64MB 3.2GB SND/USB \$175.00	COMPAQ PII 300 64MB 3.2GB CD/SND/USB \$199.00	PII 266 32MB 3.2GB CD/USB \$149.00	PII 350 64MB 4.3GB USB \$185.00	COMPAQ PII 400 64MB 6.4GB CD/SND USB/NIC \$299.00	COMPAQ PII 450 64MB 10GB CD/SND USB/NIC \$325.00	

PRICES SUBJECT TO CHANGE WITHOUT NOTICE. WE ARE NOT RESPONSIBLE FOR ANY TYPES.

Help wanted: Free gaming tips and tricks

Marc Saltzman

Game On!

Let's face it — console and computer gaming can be a costly hobby.

Even if you've only purchased a few of the thousands of titles released each year, gamers are then inundated with "must-have" controllers, expansion packs and the inevitable PC upgrade.

And how exactly do you expect to finish the game without purchasing one of those snazzy \$20 strategy guides?

Fortunately, the Web provides solace for those looking to get help with finishing their games or unlocking secrets — and for free. If you know where to look, that is.

So, put your checkbook away and take note of these following sites offering thousands of tips, tricks, cheats, strategies and walkthroughs for your favourite console or PC games.

IGN Codes (codes.ign.com)

Whether you've found a working Atari 2600 at a garage sale or were the first on your block to snag a new Xbox system, IGN Codes contains cheat codes and secrets for over forty gaming platforms.

These codes will unlock secret features in the game, such as invincibility, bonus levels or access to all the weapons, plus there's cunning strategies, full walkthroughs from beginning to end and much more. There are even downloadable saved game files and "GameShark" codes for thousands of popular titles.

Definitely worth a bookmark, whether you're a casual or a hardcore gamer.

The Spoiler Center (www.the-spoiler.com)

Believe it or not, the *Myst* and *Final Fantasy VII* strategy guides sold over a million copies each at retail. It's too bad more gamers weren't aware of this handy and free Web site that houses complete "spoilers" (i.e. solutions) to almost all current (and past) adventure, role-playing, strategy and action games.

So don't pull your hair out if you're stuck in Capcom's *Onimusha: Warlords*, Interplay's *Baldur's Gate II* or Microsoft's *Oddworld: Munch's Oddysee* — simply log on and read what you need to save time ... and sanity.

GameFAQs (www.gamefaqs.com)

FAQs (a.k.a. Frequently Asked Questions) is a broad term used on gaming Web sites that covers general game information, whether it be a strategy guide, lists of some sort (weapons, enemies, items, moves, etc.), an online



manual, cheat codes or walkthroughs.

At GameFAQs, visitors can easily peruse these archives by gaming platform (in alphabetical order) or by using

the handy search engine. Most guides are in text format; therefore expect a quick page load or an effortless download to read when offline.

GameGuides.com (www.gameguides.com)

Courtesy of the popular GameSpot e-zine, hundreds of the latest and greatest computer/console titles are featured here, such as Activision's *Return to Castle Wolfenstein*, Rockstar's *Grand Theft Auto III*, Electronic Arts' *Medal of Honour: Allied Assault* and Konami's *Metal Gear Solid 2: Sons of Liberty*.

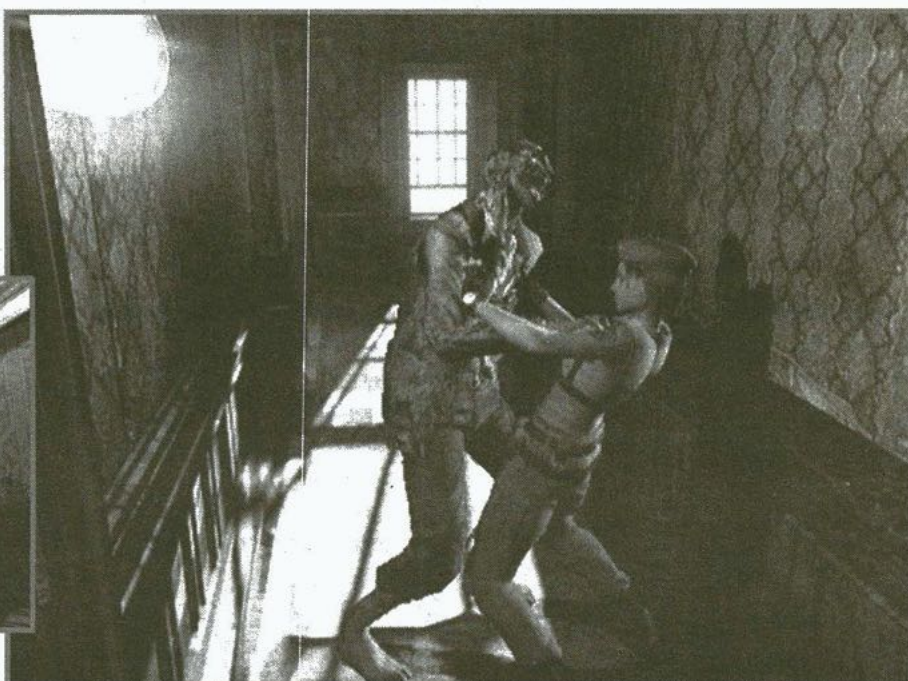
Simply click on the game of choice to access countless walkthroughs, strategy guides, FAQ files, cheat codes and more.

Easter Egg Archive (www.eeggs.com)

For the uninitiated, an "Easter Egg" is a hidden feature or novelty that programmers hide in their software, be it a hidden movie, a picture of the development team, a mini-game or game trick. There are likely hundreds of eggs buried in your video game collection, so be sure to drop into the Easter Egg Archive to sift through this vast database.

Betcha didn't know there was a pig in a parachute in Microsoft's *Combat Flight Simulator*?

Or how about turning Lara Croft from *Tomb Raider* into a giant dragon? UFOs that abduct your players in EA Sports' *FIFA 2000*? ♦



Don't fight for your life in *Resident Evil* on the GameCube — take note of these five sure-fire Web sites to access free codes, strategies, walkthroughs and secrets for thousands of games.

INTEL 1G CPU (A) \$479

INTEL CELERON 1GHZ CPU
P3 SK370 MAINBOARD(AIO)
INTEGRATED 3D VIDEO
128MB SDRAM PC-133
3D INTEGRATED SOUND/LAN
56K V90 FAX MODEM
40GB HDD UDMA/1.44MB FDD
52X CD-ROM / 160W SPK
WIN98 KB / MOUSE WHEEL
(1YR WARRANTY ALL SYSTEMS!)

GOOD DEAL!

17" SVGA MONITOR.....\$179
MS WIN98SE/ME/XP.....\$139
24X10X40 CD-RW.....\$109
16X DVD W/40X CD.....\$89

DURON 950MHZ (B) \$449

AMD DURON 950MHZ CPU
AMD SK-A MAINBOARD
INTEGRATED 3D VIDEO
128MB SDRAM PC-133
3D INTEGRATED SOUND/LAN
56K V90 FAX MODEM
40GB HDD UDMA/1.44MB FDD
52X CD-ROM / 160W SPK
WIN98 KB / MOUSE WHEEL
W/256MB SDRAM +...\$40
W/SAMSUNG17" 750S+...\$199

GEFORCE 2/4 MX 64MB W/TV.....\$89/\$169
4PORT ROUTER DSL(SMC).....\$89
40/60G/80GB HD7200...\$125/149/189
128/256MB SDRAM.....\$45/85

INTEL P4-1.6GHZ (C) \$699

INTEL P4 1.6GHZ 512K CPU
ECS P4 MAINBOARD (VIA)
32MB S3 SAVAGE4 VIDEO/AGP
256MB SDRAM PC-133
3D SOUND & 10/100 LAN
56K V90 FAX MODEM /SPK160
40GB HDD UDMA/1.44MB FDD
16X12X40CD-RW / P4 300W CASE
WIN98 KB / MOUSE WHEEL
W/17" SVGA 27 MONITOR +...\$169
W/64MB GEFORCE2 MX AGP+...\$69

AUSU MB (P4S333M/P4B)...\$125/179
ECS MB (P4S5A/K7S5A).....\$119/89
VIA MB(P4PA-UL/P4XB-M).....\$159/105
ATI 7500/8500 DDR 64MB...\$129/249

INTEL P4 1.8GHZ (D) \$979

INTEL P4 1.8GHZ CPU
ASUS P4 MB(SK478)
64MB GEFORCE2MX AGP
256MB DDR PC-266
STEREO 3D SOUND/LAN
56K V90 FAX MODEM/SPK160
60GB HDD 7200/1.44MB FDD
16X12X40CD-RW / P4-CASE 300W
WIN98 KB / MOUSE WHEEL
W/MS WINXP(H) +...\$139
W/SAMSUNG17" 753DF+...\$229

PIONEER 104 DVD-RW...\$579
PEXTOR 40X12X40CD-RW\$229
LG32X10X40CD-RW...\$119
PINE MP3+ CD-PLAYER...\$59

AMD XP 1700+ (E) \$699

AMD XP 1700+ CPU/FAN
ECS MAINBOARD(K7S5A)
GEFORCE2MX 64MB AGP
256MB SDRAM PC-133
3D INTEGRATED SOUND/LAN
56K V90 FAX MODEM
40GB HDD UDMA/1.44MB FDD
52X CD-ROM / 300W CASE
WIN98 KB / MOUSE WHEEL

E-STONE COMPUTER

5418 YONGE ST.#8 (YONGE/FINCH)
TEL:(416)733-8892 FAX:7338816
BUSINESS HRS.M-F 11-7 SAT.11-6

INTEL P4-1.6GHZ (F) \$869

INTEL P4 1.6GHZ CPU
INTEL P4 MAINBOARD
ATI7500 64MB SDR TV/O AGP
256MB SDRAM PC-133
3D INTEGRATED SOUND/LAN
56K V90 FAX MODEM
40GB HDD 7200/1.44MB FDD
52X CD-ROM / 300W CASE
WIN98 KB / MOUSE WHEEL

FINCH AVE.
E-STONE ->
YONGE ST.
EAST ->
SHEPPARD

Toronto computes! presents the 5th Annual DIGITAL DESIGN CONTEST

*Gather up your creativity
and your favorite graphics software
and get going!*

Let your imagination go wild.

Submit your computer-generated artwork, altered family photos, or any other creative artistic endeavours, along with the form below, by May 1st, 2002
Anything goes but keep it clean. All artwork must be submitted in hard copy no larger than 11" x 14" (no disks or e-mails please).

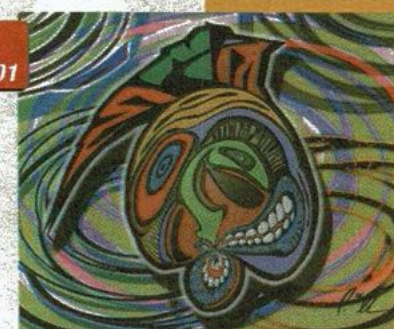
1st
in 2001



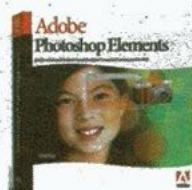
2nd
in 2001



3rd
in 2001

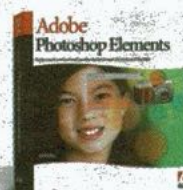


1st Prize



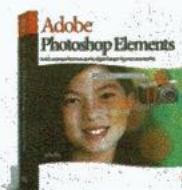
**HP PSC 950 (printer/scanner/copier)
& Adobe Photoshop Elements**

2nd Prize



**Epson Stylus Photo 890 printer
& Adobe Photoshop Elements**

3rd Prize



**Excalibur GeForce 2 Ti
& Adobe Photoshop Elements**

TC!'s 5th Annual digital design contest Entry Form Deadline May 1st, 2002

Name:.....
Address:.....
E-Mail:.....
Phone Number:.....
Age:.....

Occupation/school:.....
Title of Entry:.....
Hardware/Software used:

NO DISK OR E-MAIL ENTRIES.

Contest Rules: Prizes must be claimed by August 30, 02. Winners must provide valid identification upon claiming prize. The prizes awarded are not transferable and cannot be redeemed for cash. To enter and to be eligible to win, persons must be residents of Canada, and not employees or be domiciled with an employee of Canada Computes!, its affiliate companies, or advertising and promotional agencies. The winners will be selected by Toronto Computes! on May 16, 02 from among all eligible entries received on or before contest close date. Winners will be contacted by telephone or e-mail. In the event that they cannot be contacted within the first week following the contest another entrant will be selected. All entries become the property of Toronto Computes! and may be used in subsequent advertisements for the contest. All entries must be submitted by their artist and must be original work.

21503614

Send your entries to: Toronto Computes!, Digital Design Contest, 625 Church Street, Suite 600, Toronto, ON, M4Y 2G1 Attn: Editor

Sharing more than you bargained for

Lynn Greiner

Tele-
comments

Napster and its successors created a taste for file sharing among Internet users. That is not new — computer bulletin boards offered downloads of contributed material since they were born in the days of text-only messaging over 20 years ago.

Today, peer-to-peer networks are hot. The notion of sharing files over the Internet from their own computers, and being able to access others' files, has proven appealing. Let's ignore for the moment that part of the reason for this technology's development was to build a way to illegally share copyrighted materials, primarily music, in a way that would be hard to shut down because it existed on thousands, or hundreds of thousands, of small, decentralized "servers." The courts shut Napster down,

the technology didn't.

For some time, a number of developers of downloadable free software, have been bundling other programs with their products, programs that may install themselves on the sly, without the user's knowledge or consent. Much of this software is "adware" — programs that retrieve and display advertising as the user surfs. The adware companies pay their host distributors, giving them a revenue stream so they can continue to freely release their products, and the purchasers of the ads pay the adware folks.

If that was all that was going on, it would be easy to accept. In return for a useful free program, you put up with some advertising. Sounds like broadcast TV, doesn't it?

The problem is some of the adware is also spyware. It is recording users' surfing habits and possibly other identifying information, so it can be sold to marketing companies. The result: Users' privacy and security are compromised and the spam count rises.

Recently, however, an even more frightening bit of sneakiness has come

to light. Ad technology distributed with the popular *Kazaa* file-sharing software has been discovered to contain additional pieces that allow its authors, Brilliant Digital Entertainment, to build its own peer-to-peer network on *Kazaa* users' computers. Not only will it be able to make use of your disk space, it will be capable of "borrowing" unused CPU cycles to run programs of its choice. This will, in effect, create a virtual supercomputer that can crunch huge problems. Brilliant plans to sell this capacity to its customers.

It insists that this network will be opt-in and that users will be notified before it goes live. However, examination of the *Kazaa* licence agreement reveals that, by using *Kazaa*, you also grant Brilliant the right to hijack your system with no compensation.

I'm not sure who to be more annoyed with — Brilliant or *Kazaa*. Since the "permission" for this mischief is embedded in *Kazaa*'s user agreement, one would think that they had an inkling of what was going on and willfully betrayed their users. And since, according to CNET Download.com, *Kazaa* soft-

ware was downloaded over 2.6 million times in a single week from its site alone. The number of compromised systems is terrifying to contemplate.

A Web search reveals that there is a way to disentangle Brilliant's software without damaging *Kazaa*, but it's convoluted and full of disclaimers (if you want to try it anyhow, you'll find it here: zdnet.com.com/2100-11-875278.html). It's apparent that the program wasn't meant to be easily removed.

If we give all concerned the benefit of the doubt and assume that users would indeed be notified, be able to opt out and would be compensated fairly for the use of their computers, a few questions still arise. How do we know, for example, that users' private files will be secure when their systems are being shared? How do we know that less savoury elements won't be able to snatch control of the machines and use them as nodes in distributed denial of service attacks? How do we know that viruses won't be introduced?

More importantly, how can we trust people who would pull a sneaky stunt like this on their users? ♦

COMPUTER AND COMMUNICATIONS NETWORKING

An applied degree program @ Centennial College



BE THE FIRST

- Be one of the first to earn a Bachelor of Applied Information Sciences.
- Develop critical thinking skills and obtain a degree.
- Understand network design, application and configuration solutions.
- Get in demand training leading to industry certification examinations, including: A+, CCNA, CCNP, and MCSE.
- Gain practical experience with a three-semester co-op work placement.

Offered for the first time this fall. Apply now!

IT'S NEW AND IT'S UNIQUE. For more information about this program, be sure to attend our FREE program information session on Thursday, May 23 from 6-8pm at the Centennial College Residence and Conference Centre - 940 Progress Ave.

COME HEAR ABOUT:

- Industry support for this program
- Career opportunities, directly from employers

For more information or to register for this event, please call 416-289-5325 or e-mail succes@centennialcollege.ca



CENTENNIAL COLLEGE

www.centennialcollege.ca

21789614

Certification Expre\$\$

Microsoft Certified
Solution Provider

Approved Pvt Vocational School by Min. of Education
Official (A+) & "Microsoft Certified Partner"



MCSE 2000/CCNA/*CCNP/ UNIX/ A+/Webmaster

Actual Cases: Karen W: Zero background + MCSE w/Us = 100 k job in US, Rit P (IBM), Jerry E (Rogers), Maurice R. (HP), Alex B.(Edge), Boris P. (ING Bank> 65 k), Tony T.(100 k -US), Sak M (MCSE+ CIW-York Univ. Lecturer),.....

****SPL. LOW PRICE FOR STUDENTS FOOLED ELSEWHERE ****
(Find on our site the training institutes, whose grads we... RESCUED)

"ONLY"

One On One *Topic by Topic* 4 th Year of 100% Success

The Only Real Choice. All else is just LECTURES.
100% Instructor Lead /Flexible Schedules/ Job Help/Near Subway/Unlimited Hands On
Exam Provider Partners: Microsoft /Cisco/Certified Internet Webmaster/A+/IBM/VUE
Helping underprivileged "FREE Training for Needy"- (www.certfx.com) tarun@certfx.com

21797414

5400 Yonge St., #501, N.York (Finch Subway). Tel: 416-223 2220

Web services: Small business made large

Alan Thwaits

The
World
Is My
Cubicle



Personal computing has come a long way in a short time. A measure of that truth is the way in which critical new technologies are now a matter of evolution rather than revolution. The latest Next Big Step is probably something few computer users have heard of yet. It's called Web services, and is being developed, marketed and promoted by the big guns of the computing world, as well as some savvy smaller players.

In a nutshell, Web services is a set of technologies that gets around the restrictions of competing hardware platforms, operating systems and programming languages by using a Web browser as an interface and the Internet as the connection between services and users. Currently, Web services is very much a "behind the scenes" technology, but it's poised to become very big indeed. That's

because Web services offers users an inexpensive version of outsourcing — companies using Web services won't need to buy (or build) and maintain their own in-house technologies for e-business applications, but will access them over the Internet, using a Web browser interface and universally accepted Internet security standards.

Most visible among Web services technologies is Microsoft's .Net initiative. .Net is an add-on run-time environment that runs on Microsoft's Windows 2000 operating system. It is based on existing Internet standards such as XML (eXtensible Markup Language, an advanced Web design language) and SOAP (Simple Object Access Protocol, an XML-based protocol for exchanging information) and is the basis of Microsoft Web services applications such as MS Passport, which automates the process of verifying the identity of individual Internet users.

IBM has been in the Web services game for a little bit longer, with its WebSphere family of products. WebSphere tools are based on J2EE (Java 2 Platform, Enterprise Edition), with the result that tools developed and

marketed under WebSphere will serve users across divergent platforms.

But .Net and WebSphere, excellent technologies though they are, exist at the high end of the market. What's particularly exciting for the rest of us (assuming that most of the readers of this column aren't big time enterprise IT types) is that affordable Web services offerings are increasingly coming on the market for the rest of us.

One of those offerings is Pathway Communications' Webdesk (see www.pathcom.com/webdesk/). It's certainly affordable — a \$25 setup fee, and then \$14.99 per month for a five seat (user) package. For that, Webdesk offers a business-oriented communication and collaborative tool bundle that includes a calendar/scheduler, contact manager, file sharing, chat, internal e-mail, polls, discussion groups and more. It's aimed at the small- to medium-sized business that doesn't need or want (or perhaps can't afford) a complex and pricey set of groupware technologies. The good news is that it does much the same job.

I've been testing Webdesk for the past couple of weeks. I share my Webdesk space with three colleagues. As is the

case with many businesses these days, we're geographically separated, and yet we share common projects and need to coordinate our schedules. Files need to be passed back and forth, ongoing tasks need to be harmonized and meeting agendas need to be thrashed out before they happen. If we can get that kind of work done, then our face-to-face time is more efficient and productive.

So far, the results have been very promising. Webdesk offers all the tools we need to collaborate effectively. The only tools needed are an Internet connection. We can sync our Outlook Calendars, Contacts and ToDo lists with corresponding applications on Webdesk, which takes away the need to double-key entries. We've been able to review and revise documents and databases, engage in online chat sessions and coordinate our schedules on a real-time basis.

If Web services is the next step in computing, I'm all for it. Long live the evolution! ♦

Alan Thwaits, a *TC!* Contributing Editor, is a freelance journalist who writes about computer, communications, and business technologies. He can be reached at prax-

TAKE THE CONFUSION OUT OF I.T. TRAINING



Simply the best.

2 Carlton Street, Suite #610, Toronto (College Subway Station)
The IT School of the International Academy of Design & Technology

ACT NOW

416 593 2777

www.softtrain.com



CERTIFICATION
@ Humber College

IT SUN JAVA

IT LINUX

IT ORACLE DBA

IT MCSE

IT CISCO

Limited seats available -
CALL NOW

NEW Exclusive to Humber in
Toronto: Developed by
the Software Human
Resource Council (Canada),
the Information Technology
Professional (ITP) program
provides nationally
recognized certification,
plus industry recognized
certification in MCSE,
CCNA and A+. Call
to register.

416-675-6622 ext. 4937
www.it.humberc.on.ca



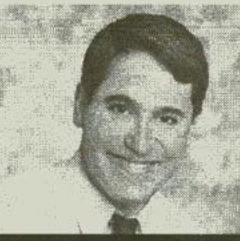
HUMBER
School of Information Technology

21797714

Great new products from Apple

David Rosen

Mac
Rant



Since we last met, Apple announced a gorgeous, flat panel monitor; new remote management software; a larger-capacity iPod; and Mac/Bluetooth device connectivity. Apple is apparently doing so well that it actually raised the price of its bestselling "desk lamp" iMac model by \$100 (citing increased parts costs). Despite this, the company still can't make them fast enough to keep up with demand.

New Cinema Display

A large screen is simply a necessity for many vocations. Layout artists, for example, wrestling with *Photoshop*, *Illustrator*, *XPress* and *Word* (often at the same time), or financial analysts, struggling to fit thousands of spreadsheet cells onto one screen, have often-

times lusted after Apple's 22-inch Cinema Display.

Well, Apple's new Cinema HD Display features a stunning all-digital 23-inch flat panel display with 1,920x1,200 pixel resolution and a 16:10 aspect ratio. The screen is less than two inches thick, but sports a 160-degree viewing angle. This smart engineering move means that people viewing the display at rather oblique angles (such as the crowd that will inevitably form around your Power Mac G4 equipped with the necessary ADC connector) can still see things clearly.

If you're what Apple succinctly calls "a creative or technical professional" you'll probably be starting your Christmas wish list early this year. However, if you're buying one of these great screens for yourself, you better start saving your pennies. The new Apple Cinema HD Display should be available this month for a suggested retail price of \$5,599.

Apple Remote Desktop

The company's software gnomes have also been busy releasing Apple Remote Desktop. This Mac OS X-based software

package lets you remotely manage other Mac desktops anywhere on a local network, AirPort wireless network or across the Internet. Obvious applications include teachers (who can view student computer screens, perform demonstrations and provide help individually) and IT professionals (who can reconfigure system settings, provide remote help desk functions and distribute software applications).

Apple Remote Desktop supports multiple levels of administrator access, each with its own password, and can remotely control computers by locking screens, starting, restarting, sleeping or waking computers on an individual basis or for an entire workgroup or computer lab. The software is available for a suggested retail price of \$479 for the 10-client edition, and \$799 for the unlimited client version. Special education pricing is also available.

Apple introduces 10 GB iPod

If you've got the music in you, Apple's announcement that a second model of its très cool iPod digital music player, featuring a 10 GB hard drive, will get you dancin' in the streets. This larger hard drive doubles the maximum number of CD-quality songs that can be loaded into an iPod, to 2,000. Plus, Apple has announced that all iPod owners can download free software that lets you transfer and store contact lists with up to 1,000 names and addresses right alongside your music!

Interestingly, Apple hasn't dropped the price of the older, 5 GB capacity iPod to make room for the new model. Instead, the new 10 GB iPod is available for a suggested retail price of \$799 and the 5 GB model remains priced at \$599. Both the *Contact* and *EQ* software (for customizing your music) are available for free download to current iPod owners at www.apple.com/ipod.

Bluetooth coming to a Mac near you

Apple is also previewing its OS X-based Bluetooth technology. The new software and hardware combination enables short-range wireless connectivity between a Mac and a variety of digital devices, including Bluetooth-enabled PDAs and cell phones. Apple is making a preview version of its Bluetooth software available as a free download (www.apple.com/bluetooth) and is selling a Bluetooth USB hardware adapter designed to Bluetooth-enable any USB-based Macintosh computer running OS X version 10.1.3, for \$80. ♦

AD INDEX

1 Stop PC	67	Hitech Exchange	50
2000 Computers	69	Hitech Institute	15
ABC	27	Humber College - School of IT	71
Absolute PC Solutions	66	ICCT Computers	5
Advanced Computer	47	Infonoc	22
AEI	68	Keit Computers	45
Angel	40	Korax	68
APO International Limited	51	Logic Computer	62
Aptech Worldwide	63	Look Residential	41
AT&T - Colocation	2	MDG Canada	52
Auction4it.com	70	Micropoint	33
Bell N-Business	68	Monitor Plus	53
Bell Sympatico	70	Monitor Repair Centre	24
Blue Genesis	68	MPT Computers	53
bluEcho Managed Hosting	68	Notebook Universe	33
BNC Compuware	24	Ntropic Inc.	49
Canadian Domain Name Services I	64	Overseas Video Lab	30
CBL Data Recovery	17	OZ Computers	29, 35
Centennial College	12	Pathway	44
Certification Express	23	PC Maniak	32
Classified	48, 68	PC Village	68
Communication Technology Credit	54	Plug and Play Marketing Group	31
ComNet Services	56	Premier Computer Canada	42
Compumemories	9	Promax	31
Computer Square Inc.	67	Quantum Media	38
Computer Warehouse Outlet	30	Radio Shack	19
computes - subscription ad	25	Softtrain	68
Cybraian Computer	64	Summit Direct	67
Dell Canada	67	Superidea Technology	54
Digital Design Contest	54	The Computer Edge	68
DomainPeople.com	66	Throne Computer Systems Inc.	45
Dytech	20	Turbocom Computers	18
E-Stone Computer	8	Union Computer	43
Echo Online	7	United Computers	61
Elosoft	59	Vif Internet	68
Factory Direct.ca	65	Winnet Systems	68
Fazcom Training	3	Wizznet Canada	68
GoGo Computers	36	World's Cheapest Computer Wareh	68
Grey Tech	60		
Harvest Computer	55		

The Computer Paper is not responsible for errors or omissions.
The Ad Index is printed as a courtesy to our readers and advertisers.

Oracle 9i Workforce Development Program DBA SQL PL/SQL Fundamentals I Fundamentals II Performance Tuning Application Developer Track SQL PL/SQL Developer 2000 Forms Reports Sylvan #ON87 \$2499 EACH	MCSE \$1999 or \$299 per module MCSA Professional Server Active Directories Network Management \$1299 Accounting & Office Admin. - MS Word - MS Excel - MS Access - MS PowerPoint - Simply Accounting \$1599	Travel & Tourism Diploma \$2499 Includes Books - Reservation Agent - Ticket Agent - Flight Attendant - Travel Counsellor - Sales Representative - Passenger Agent	Network Support Technician Diploma ONLY \$4500 DOS Windows 95/98 A+ Technician UNIX MCSE 2000 Novell (CNA)
---	---	---	---

A+Cert. \$499 Network + \$575

Database Specialist Diploma **CISCO** CCNA - \$399 CCNP - \$1999

• SQL & PL/SQL
• Oracle 9i Database: Fundamentals I
• Oracle 9i Database: Fundamentals II
• Oracle 9i Performance & Tuning
• Unix
• Windows 2000 Server

905-874-3311 CALL NOW

FAZCOM TRAINING
IT Training Professionals
Registered and approved as a Private Vocational School
EI/HRDC Recipients Welcome
www.fazcom.com

Get Certification **FREE EXAM VOUCHERS** FOR LIMITED TIME OFFER

CISCO, UNIX, ORACLE, A+

HRDC Funding may be available for Qualified

CISCO CCNA \$499 CCNP \$599ea CCIE \$2500	UNIX (Spark Stations) User Level \$100 System Admin I & II \$499ea Networking Admin \$599	NETWORKING A+ (60Hrs) \$499 (Win, 98, NT4.0, Win 2000 & PC Tech) NETWORK+ \$499
---	---	---

COMPUTER BASIC \$99 **WORD 2000 \$99** **EXCEL 2000 \$99**
MS ACCESS \$99 **FRONTPAGE \$99** **POWERPOINT \$99**

PROGRAMMING
 JAVA I/II \$399.00 Each
 Visual Basic 6.0 I/II \$399.00 Each
 C++ I/II \$399.00 Each
 Web Designing \$399.00 Each
 Quality Assurance CALL

ORACLE (SUN Solaris)
 DBA Package \$3200
E-Commerce
 Complete Package \$1499.00

ACCOUNTING
 QuickBooks
 Simply Accounting
 ACCPAC
 MYOB

PROMETRIC ON127

SECURITY
 Checkpoint, CISCO PIX

FIELD TRAINING AND CO-OP PROGRAM AVAILABLE
 Chart of Accounts, Account Receivable & Payable, Payroll, Bank Reconciliation, Adjusting Entries, Trial Balance, Income Statement and Balance Sheet, Working Papers and Worksheet on Excel

WHIZZNET Tel: (416)423-2227
 2, Thorncliffe Park Drive, Unit #37, Toronto, ON M4H 1H2
 E-mail: training@whizznet.com Website: www.whizznet.com
 * Some Applied Restrictions

Cisco Training **CISCO SYSTEMS**

We Produced 4 CCIEs IN FOUR MONTHS

CCNA \$399.	MCSE 2000 \$2100
CCNP - Module \$599.	UNIX - SOLARIS \$499.
CISCO PIX Security \$699.	LINUX \$399.
CISCO VPN Security \$699.	MCSE 2000- PROFESSIONAL \$399.
CISCO MPLS \$699.	MCSE 2000- SERVER \$399.
CCIE Theory \$799.	SQL ADMINISTRATION \$399.
VOICE OVER IP \$799.	CHECK POINT \$499.

FREE CCNA or MCP FOR EI RECIPIENTS
 The courses are designed by:

Visit Our Lab....

* ISDN lines, ADSL Line & Frame Relay Circuit
 * 60 Cisco Routers- 7500, 4500, 4000, 3600, & 2500
 * Catalyst 5500, 5000, 3920 & 1900 Switches

HARITH
 MS Certified Trainer
 B.Sc. Eng., MIBM, CNE, MCSE, MCT, CCNP, CCDP,
 Cisco Security Specialist,
 CCIE #8661

WinNET SYSTEMS
 HI-TECH TRAINING & CONSULTING

MISSISSAUGA 918 Dundas St. E., Suite 206, Mississauga
 Tel: (905) 940-TEST (8378)

TORONTO 1200 Eglinton Ave. East, Suite 100, Toronto, (Don Mills & Eglinton)

SCARBOROUGH Lawrence Ave. E.

Tel: 416-447-TEST (8378)

1-877-3-WINNET www.winnetsystems.com email: teachme@winnetsystems.com

The Computer PAPER
 A Trader.com Publication Canada's Computer Information Source

EMPTY??

\$17.77 SPECIAL

Subscribe Now!
 And we'll deliver to your doorstep!

☐ **Yes!** Send me 12 issues of The Computer Paper for only \$17.77 (Tax and Shipping Included)

Name _____

Company _____

Address _____

City _____ Province _____ Postal Code _____

Phone _____ Fax _____

Email _____

☐ Visa ☐ MC ☐ Cheque ☐ MO

Card# _____ Expiry Date _____

Signature _____

Send to 625 Church Street, Suite 600, Toronto, ON M4Y 2G1
 Phone 1.800.465.3517 ext. 1273 • Fax 1.866.263.0899

www.canadacomputes.com **The Computer PAPER**
 Canada's Computer Information Source

MONITOR

Sale **1 YEAR WARRANTY** **Repair**

6mth Part Warranty

REFURBISHED MONITOR ON SALE

15" from \$69 17" from \$99
20" from \$199 21" from \$299



ALL KINDS OF MONITORS (INCL. LCD)
Repair any model. Low Price & Flat charge.
Free estimate. Visit our website.

MonitorPlus+ Dufferin
Finch Allen

www.monitorplus.ca
(416) 663-8878
1110 Finch Ave. W. Unit 2

NETWORK SUPPORT



- Novell, Microsoft Win9x/ME/2000/XP
- Network Installation and Service
- Software / Hardware Sales
- Business Vision Authorized Dealer
- Web Page Design
- Internet router - firewall setup



Reliable · Onsite · Reasonable Rates
http://www.comnetservices.com

ComNet Services

Tel: (416) 733-8098

>> ntropiX Linux solutions

open-minded solutions

- 24x7 Technical Support (Linux, SCO, BSD, Solaris)
- Linux Servers (File, Print, Backup, Web, Email, Fax)
- Security, Auditing, Networking, Firewalls & VPN
- Web Development (PHP, Perl, Java, MySQL, PostgreSQL)

http://ntropix.com T: 416-410-3669 E: info@ntropix.com

Home/
Small Business

Networks

Affordable-Efficient-Reliable

- Internet Sharing
- Installations
- Troubleshoot
- Security

@bsolute
computers

416 222-0458
www.absolute-pc.com

Get the best of
www.canadacomputes.com
every week in your inbox!



canada
computes.com

oh no.

virus.
media crash.
data loss. we can help.

Your data is important to us.
So are you.

1.800.551.3917
(1) 905.479.9938
(1) 905.479.1515

105-590 Alden Road
Markham, Ontario
L3R 8N2
Canada



www.cbltech.ca

VIRUS ALERT CENTRE

CBL Data Recovery Technologies, Inc.

The lost-and-found for 1s and 0s.



Building Careers, Changing Lives... Globally

BIG DREAMS START WITH APTECH'S TOP NOTCH COMPUTER TRAINING

We Train over 500,000 students Per Year globally
Strong International presence with 2500 centers in 52 countries
Trains with Microsoft, IBM, Sun, Novell, Oracle, and Macromedia etc
Total Quality Management by Aptech (ISO 9001 approved)
Financial Aid to those who qualify & Job placement assistance
Instructor led classroom Training (Day, evening & weekend classes)
Easy Access (minutes from Islington/Kipling Subway)

ENROLL TODAY - LIMITED SEATS

BASIC COURSES	Professional Series	Corporate Courses
<ul style="list-style-type: none"> • PC Hardware Specialist • A+ Certification • MS Office Specialist • Network Certification • Database Certification • Programming Certificate • Video Designing Certificate 	<ul style="list-style-type: none"> • DOT NET • J2EE Architecture • JSP Application • Linux Specialization • Database Administration • E-Com Specialization • Client Server Specialization 	<ul style="list-style-type: none"> • Network Security • ACNAPP • COAD with UML • Effective Project Management • Effective QA / Software testing

CAREER LEADER INC. (Franchisee of Aptech Worldwide)
3045 Southbrook Business Park, Suite 25 & 27, Southbrook Rd. Mississauga L4X 2K6, ON
12 km west of Hwy 27 on Dundas Street
Tel: (905) 633-9111, Email: aptech@clinc.ca, www.aptech-globaltraining.com



Printer Repair

"We are not the cheapest but
We do it right the first time"
Our prices are very reasonable!

We Specialize in Laser Printers
SERVICE. SUPPLIES. SALES

"OVER 10 YEARS EXPERIENCE ON FOLLOWING MAKES"
HP, OKI, QMS, APPLE, LEXMARK, CANON
SAMSUNG, PANASONIC...

HARVEST COMPUTERS "We will pick up and deliver"
1550 16th Ave., Building A Unit 15 (N.E. corner of 16th & Leslie)
Richmond Hill TEL: 905-770-2668 Toll Free: 1-888-711-3473

Transfer your Videos and Old Films to

DVD

- Advanced DVD Authoring Services
- Linear/Non Linear Broadcast Editing
- Standard Conversions - Any Country (NTSC/PAL/SECAM)
- Audio, Video, CD and DVD Duplication
- Specialized Corporate Video & Multimedia Presentations
- 8 & 16mm Films, Photos and Slides to Video or DVD
- Web Design and Streaming Services, HiDef Projector Rental

Overseas Video Lab (416) 244-1822
1359 Wilson Ave.

www.overseasvideolab.com Since 1980

MONITOR REPAIR

Yes! We are the monitor specialists!

We do
*Repair any kind of monitor
*excellent service & price Guaranteed
*20 years experienced monitor engineer
ready to serve you
*Same day service / 6 months of warranty
*Available free pick up & delivery
*Used monitor, buy and sell

800 Denison St.
Unit 6, Markham

Please Call now! 905-943-7609

CD DUPLICATION 1.60

Includes the cd and the duplication
Quantum Media Services
discounts on orders over 100+

24 hour service available

SPECIAL

1000 pressed cds

\$ 0.99 per unit

inc 2 color silk screen

We also do
full packaging for as low as 0.55
Business card and shaped cds

Visit our website at www.qmservices.com

1100 Eglinton Ave East

Inside the Inn on the Park Hotel at the Business Centre

416-441-4000

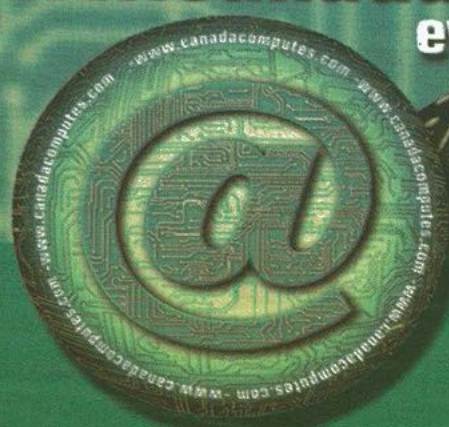
or toll free in Canada 1-877-438-2692

21808014

Get the best of

www.canadacomputes.com

every week in your inbox!



canada
computes.com

To place an ad or request more information, please send an email to classifieds@tcp.ca or call Donna Eng at (416) 923-7100 ext 1206. Out of Toronto please call 1-800-465-3511

BIOS PROFESSIONALS

BIOS UPDATE/RESCUE \$25
Troubleshooting 416-8564138
<http://www.biosxp.com>

CONSULTING

ASSISTING BUSINESS AUTOMATION
FavorWare caters to small businesses!
<http://www.favorware.com>

EMPLOYMENT

INDEPENDENT COMPUTER CONSULTANT seeks employment. Call Sheeraz at 416-566-8274. Rate \$30/hr.

ETHERNET CARDS

3COM509B-TPO ISA network card
\$12/ea good on any OS(e.g.Solaris)
Victor 905-850-7202.

HARDWARE

BARCODE SOLUTIONS ##
Printer, Scanner, VB/Access custom
S/W prog. dcs2001@yahoo.com

17" MONITORS \$170 NEW, Main Board
\$20, Hard Drives Repair Exchange, CD
ROMS \$20. 416 635-8811.

CDROM \$25, Writer \$50, Monitor 14"
\$20, 15" \$50, 17" \$99, Hard Drives
Repair & Exchange 416-635-8811.

COMPUTER COMPONENTS: CD-ROM
\$25, VGA Monitors \$15, HD, more
(416)6610560.

MAY SPECIALS

DESKTOP PC'S (Refurb. like new)
Pentium 166 & up from \$69
Pii 233 64MB, 3.2GB, CD & SMD \$169
Pii 266 64MB, 4.3GB, CD & SMD \$179
Pii 300 64MB, 4.3GB, CD & SMD \$229
Pii 333 64MB, 4.3GB, CD & SMD \$269
Pii 350, 64MB, 6GB, CD & SMD \$299
Pii 400, 128MB, 9GB, CD & SMD \$329
Pentium III 450 & up from \$399

MONITORS (Refurb. like new)
Compag, HP, DELL, IBM, & NEC
SVGA 15"/17"/19" & up from \$70/99/199

DSL Computers & Electronics
5200 Finch Ave. East
Unit 107A, Scarborough
(Finch & Middlefield)
Phone: (416) 335-5126
Mon-Fri 10am to 7pm
Sat-Sun 10am to 5pm

JUPITER/COMPUTER PARTS DEPOT,
We Buy / Sell / Trade Parts &
Systems, New & Used. 469 Hensall
Circle, Unit 9, Miss. 905-273-9304
www.jupitercomputers.com

**Refurbished
Sun microsystems**

- Sparc 5, 10, 20
- Ultra 1, 2, 5, 10, 30 & 60
- E 150, 250, 450 & E220, 420
- Sun Monitors 15", 16", 17", 19" & 20"
- Memory, Hard Drive & CD ROM reader
www.microprocanada.com 416-523-TECH (8324)

SONY PLAYSTATION & PS2 MOD
chips installed, from \$40. Full
Guarantee. Tel: (905)947-4624.

canadacomputers.com

HOME ELECTRONICS:

PRICES STARTING AT: Cordless
Phones \$49.00, Stereos \$79.00, VCR's
\$79.00, DVD Players \$179.00, TV's
\$129.00, Microwaves \$79.00,
Computers, Monitors and more. DSL
Computer Electronics 5200 Finch
Avenue East, Unit 107, Scarborough,
416-335-5126. Monday to Friday
10am-7pm and Saturday 10am-5pm.

INTERNET

** WEB SITE DESIGN, from \$100 4
pages Email web99@lycos.com **
\$9/MTH. UNLIMITED INTERNET
ACCESS, Web Hosting, Spidercom
Corp. @ 416-657-0908. 146
Vaughan Road.

INTERNET PROGRAMMING &
Lessons HTML JavaScript Perl Java ED
416-785-5115 www.cstutoring.com

WEB HOSTING \$5 / MONTH Fast and Reliable
Web Hosting <http://www.host45.com>
WWW.WEBHOSTCITY.COM
Programmer paradise, with Live Stats,
ASP, SSL and ASPmail 877-446-7195.

MACINTOSH

POWER BOOK 1400CS, 32MB, 1.3,
CD & 5300C 32MB, 770MB HD,
External CD ROM with Printer. Call
Silvano (416) 924-0100.

PC COMPUTERS

PENTIUM PC's, Monitors, Keyboards,
Mouse, Etc, Bargain Prices. Call Steve
416-491-0140.

PC NOTEBOOKS

ALMOST NEW iBook: 500MHz, 128
Mb, 10 GB, CD/DVD, 56k modem,
warranty, extras. 416-234-5313

LAPTOPS FOR SALE, great deal! from
low-end to high-end ranging from
\$300 and up! Call Giovanni
@ (416)994-7637.

NEC VERSA - OLDER PARTS in
Toronto. Affordable notebooks for
students. www.parts-u-need.com

NOTEBOOK COMPUTERS- New &
Used, Sales, Service & Repair, etc.
Great Prices. www.LessTech.com,
416-401-8866.

PRINTERS

LASER PRINTERS On-Site & Depo Service
Supplies and Accessories, Refurbished
Printers for Sale, Brampton Technology
Services 190 Wilkinson Road, Unit-9
Tel: (905) 796-5488

REAL ESTATE

FREE ONE YEAR Home Warranty And
More With The Purchase Of Your Next
Home. www.thatssthehome4me.com

S.C.E. REPAIRS

* Specialize in big MONITORS
* Printers, PC, MAC, Copier & FAX
* 30yr professional experience
* Free estimate & the best price
Sale: CD/DVD/CR-WR \$20/45/55
HD: 2G/3G/4G/6G \$30/35/40/55
Monitor 14"/15"/17"/20"
\$20/65/125/250
905-305-1205
825 Denison St. Unit 25
www.geocities.com/scerepairs

SERVICES

#1

Password Data Recovery
Back Up-Cloning
Network Internet
PC related ON-SITE Service
John 416-636-8858
Computer Datanet
826 Wilson Ave. Toronto ON

COMPUTER SERVICES FOR SMALL BUSINESS

TECHNICAL SERVICES

- Express (4hr) On-Site Support
- Hardware and Software Setup
- Network Install & Configure
- Internet Install / Troubleshoot
- System Troubleshooting

CONSULTING SERVICES

- Systems/Network Design
- Network Security
- Virus Removal/Data Recovery
- Maintenance Agreements

→ 416-483-5877 ←
www.360systems.ca

#1 WEB DESIGN & PROGRAM-
MING. INEXPENSIVE, PROFESSION-
AL. Flash, Win32 C++, Java, Perl, VB.
ALSO: PROFESSIONAL WEB PRO-
MOTION. Get to the Top of the
Search Engines! Call: 416-994-5580.

* ROMANDESIGN.CA * WEB
DESIGN DHTML, Flash, ASP, E-
commerce info@romandesign.ca
416-440-0435

\$35+/h www.WEB-DEVELOPMENT.ca
Design, programming, databases,
Flash, CGI, ASP 416.457.7433

A1 WEB PAGE DESIGN Special \$99
& up Web Tutoring 17yrs in
Graphic Arts (905) 891-5063.

COMPUTER GIVING YOU PROBLEMS??

I WILL COME TO YOU
AND FIX YOUR PROBLEM
FOR \$25/HR!!
PHONE: (416) 767-3845

ASP,E-COMMERCE,Web,C C++,VB,SQL
Access,COM,php,DHTML,Network
416-630-9989 www.hexocom.com

ASSISTING BUSINESS
AUTOMATION FavorWare
caters to small businesses!
<http://www.favorware.com>

BIZ & HOME PC/MAC help @ your
Home/Office -Win95/98, MsOffice,
AutoCAD, Net Call Tim 384-6467.

BUSINESS DATA SOLUTIONS-
www.businessdatasolutions.ca
Helping you automate your busi-
ness- Contact Rick 416-516-6911 or
toll free 1-866-506-3684, email
rick@businessdatasolutions.ca
C C++ , C#, JAVA, VHDL,
Programming, Lessons & Tutoring ED
416-785-5115 www.cstutoring.com

WEB Design & Hosting

Flash animation, Banner design,
Javascripts, E-commerce,
Database backend, Desktop pub-
lishing. Visit www.Compu-IT.ca
E-mail: sales@compu-it.ca
905 281 2500

COMPUTER PARTS DEPOT: CDROM
\$20, Monitors from \$20, Modem,
Sound, Video Cards, 416-635-8811.

COMPUTER REPAIR, Network
Web Design, On Call Help
1-866-769-9900 www.3tara.com
905-456-6560.

Computer PROFESSIONAL On-
Site, Home Network Connect,
PC Upgrade/Repair Call Simon
416-240-8813

COMPUTER SERVICES
smallbusinessIT.com Network,
Hardware, Internet, E-Commerce
416.590.9114.

COMPUTER SPECIALIST: Home/Bus Any
PC, Hard & Soft Troubles NETWORKS,
Firewall, Routers, Internet Connection &
Sharing, Security, Data Recovery, SERGEI
416-762-0801 / 708-3067

COMPUTER SPECIALIST Install,
Repair, Upgrade, Network, PC's Low
rates! Call Du 905-282-9184

CONFUSED, STRESSED OUT? Call
416-803-6241 for on-site COMPUTER
HELP. 6 yrs experience.

CUSTOM DATABASE DEVELOP-
MENT. Call Protech Programming
at 416-888-9854/ask for Joe.

CUSTOM DEVELOPMENT: small to
mid-size projects. Web, Database,
CGI, Java, C++, Linux, etc.
Affordable to small businesses and
non-profit organizations. 8 Years
experience. www.damaru.com
michael@damaru.com 416-540-1284

CD DUPLICATION: Audio/Data
CDs/DVDs. Discounts on orders over
100+. WEB DESIGN & HOSTING (low
rates). Call 416-545-0252 or e-mail
salimmi@pathcom.com

LASER PRINTER

- Supplies • Service
- Sales • Repairs

Including
Okidata Hewlett Packard
Deerhide Computer
(905) 660-0741 (416) 740-0711
9:00am to 4pm weekdays
Email: deerhide@bigfoot.com

EXPERT WEBSITE DEVELOPMENT
Rowanlea WebWorks 416-566-9473
www.rowanlea.com/webworks/

On - Site Service

Hi Computers 2190 Warden Ave (Sheppard)

Pay When Hassles GONE

Home/Business Networking
Installation - Troubleshooting
PC Repairing - Upgrading
Internet Sharing - Emails
Rogers/Sympatico/ISDN/Routers
Database Design

From \$25/hr In-Store Service
From \$35/hr On-Site Service

Please call Jennifer I Harry

Microsoft Certified (416) 490 - 8868
Professional (416) 457 - 3668

HIGH SPEED COLOCATION/VIR-
TUAL HOSTING Prices start @
\$16.95! Call 416-821-7801
www.multiwebhosting.com

HOME/BUSINESS NETWORK SOLU-
TION - Upgrade/Troubleshooting PC. Call
416-545-0252 or salimmi@pathcom.com

I.M.S. 416-784-4134
www.imssystems.com

INTERNET BUSINESS SOLUTIONS
PROFESSIONAL WEBSITE DESIGN
WEB MAINTENANCE
BUSINESS CONSULTANTS
FOR SMALL BUSINESSES
e-COMMERCE & CRM SOLUTIONS

INNOVATIVE MEDIA SOLU-
TIONS Web & Graphic Design, Logos,
Corp Identity Packages, Slide
Presentations, Web Hosting Low Rates
416-708-9990 www.m3studios.com.

LASER PRINTER SERVICE

HP, Lexmark Lasers
FUJITSU DOT MATRIX

Call INTERDATA for on-site service
(905)451-0967

K-SOFT: COMPUTERS, UPGRADES,
Install & Troubleshoot, Programming,
Tutoring. Low Rate 416-836-9900.

KEN THE COMPUTER DOCTOR
House calls for PCs. DOS and
Windows repair. East Toronto thru
Oshawa areas. Cell: 416-464-1833.

Compatible Toner Cartridges
For Printers, Photocopiers, Faxes
Excellent Results - Every time you print

Save more than 40%
Call for prices and free delivery

Laser Dina Charge,
13 years in business

43 Tuscan Blvd, 140 McEwen Ave,
Vaughan, ON L4K 5J2 Scarb., ON M1B 3V1
905 303 6260 416 617 0231
toll free: 1 877 846 9359 www.laserdina.com

LOWEST PRICES:- Design,
Development: Software,
Database, Web (optional
free), www.tops.eplugz.com
or Call: (416) 457-3618.

Novatrex

Complete Business Solutions
Custom Software Development
Database Solutions
Internet Solutions
Network Management
Unix / Linux Administration
Unix / Linux Training
Web Hosting

Call Sales M-F 9-5
416.209.8220

www.novatrex.com

ONSITE PC/NETWORK/SERVICES for
home/SOHO/Commercial from \$25.
905-816-0100. www.FTMCOM.com.

ON-SITE PC SERVICE, network,
Internet, install/upgrade certi-
fied professional 416 590.9114

ON-SITE COMPUTER SERVICE

\$25 hr (416) 760-7027

on www.optimicro.com

- Custom Software Solutions
- Business Applications
- Mobile/Wireless Applications
- Web/Internet/e-Commerce
- Database Applications
- I.T. Consulting

Serving GTA since 1991

Microsoft
CERTIFIED 905-470-7016
Partner

PEAK
DATABASE
DEVELOPMENT
LAN
WEB
CUSTOM
SOFTWARE
FOR PEAK EFFICIENCY
Email: peakdb@sympatico.ca
(905) 874-9326

PC Help

Setup, Installation, Configure,
Troubleshoot, Internet, Networking
Repairs, Upgrades and Sales
On & Off Site Service
905-840-3103

PROFESSIONAL SOFTWARE DEVEL-
OPMENT available for a reasonable
rate. Call Andrei at 905-709-0568.

Laser Printer Toner & Repair

Copier, Fax, Inkjet Cartridges,
Service Tons of recycled toner, inkjets, ribbons
HP 11, 111 \$39; HP 11P, 111P \$49, A30 \$75;
HP 5L, 6L 1100 \$49; HP 4000 \$79; Optima B \$39;
Oki 400600E \$17, OPC \$99; Xer 385 \$89;
Xerox XE 60, 80, XC \$20 to 1255 \$99

We carry major brands 905-890-0330
We Buy Empty Cartridges pmdave12@aol.com

PROFESSIONAL VIRUS REMOVAL
without data loss. Onsite. A+
Certified Technician: 416 560-7850

Profile: Potentially Magic – Carla Hartsfield

Who: Carla Hartsfield is a Toronto-based writer whose third poetry collection is forthcoming from Brick Books in fall 2003. Her first novel, "Potential Magic" is scheduled for release next year, as well, if she can stop listening to taped versions of it in her car. Carla is also a classically trained pianist and self-taught autoharp player.

What is the computer you are now using? I'm using a HP OmniBook 4100. It has a nice, flat 14-inch screen and an interchangeable CD-ROM/floppy disk component. I bought my HP in the spring of 1999 and haven't used it that much until recently, unless I was traveling. I must pack my computer when I travel, like another person would need to pack a camera or toiletries or underwear. I like to write on trips because I'm inevitably alone on them – and would rather leap into a poem or novel chapter than watch television.

What was the first computer you used? One of the very first IBM personal computers ever made! I brought it from the U.S. when I came to Canada in 1982. I didn't know that many people at the time who owned personal computers. It was a real novelty!



Toronto-based writer Carla Hartsfield

Are there any other technology gadgets you are using? As an acoustic performer on piano and autoharp, I find micing at gigs to be a real challenge. If you're recording a live CD, which I've done on piano, that is one of the most challenging situations imaginable. Often the result can be disappointing if you're not working with a sound engineer who has an ear for the many harmonics a piano or harp produce. I had a gig on St. Patrick's Day, where I was going to be playing my 36-string autoharp. It's a nice Oscar Schmidt with a beautiful soundboard, top of the line, but tricky to mic. So, I bought a condenser mic in the Twelfth Fret that clips right onto the instrument. What tone! These microphones are not cheap, but if one is picky like me, it's worth it. And I've even managed to rig it so that I can use the mic for both voice and instrument.

What is the best thing about the technology you have? Because I'm a professional writer, too, I can't imagine living without a computer. When I was writing my first poetry collection all of my first drafts were in long hand, then I would transcribe them later. But,

as computers got faster (and I got perhaps lazier) I started to draft my poems directly into the computer, edit there, everything.

What piece of technology can't you live without? I have always loved my tape recorders. I got my first one, an Ampex when I was fourteen with a detachable stereo mic. Tape recorders are not only great when you want to lay down an improvisation or rehearse, but I seem to need my tape recorder for writing.

Is there some piece of technology you think you need? Well, I need a new desktop, actually! Computer technology is evolving so quickly, my 1998 desktop doesn't have enough memory. I also need two really fabulous mics for my grand piano and a DAT machine.

What frustrates you most about technology? I'm not very patient, so to learn a new program or even get used to a new computer is kind of a disaster for the first day or so. I'm just too right-brained. I want the amazing result immediately. There are problems with all scoring programs, too. Inevitably you print out a song or whatever with loads of mistakes, weird sharps and flats, and you think, geez, how did that get there? Then you end up fixing it all manually. I'm still partial to scoring music the old-fashioned way as are many composers, but it's painstaking and slow. ♦

—interview by Tom Venetis

Hi Tech *NEW RATES IN EFFECT* CLASSIFIEDS

Advertise your used computers & technology equipment to over 600,000* computer users

FOR ONLY \$15/AD *plus gst
OR PAY **\$25/AD** *plus gst
BOTH PUBLICATIONS!

Toronto computes! THE TECHNOLOGY INDUSTRY MAGAZINE **The ComputerPAPER** A TORONTO PUBLICATION Canada's Computer Information Source

CLASSIFIED ADS
\$15 per ad plus GST up to 90 characters

SEMI DISPLAY CLASSIFIED ADS
\$75 plus GST per column inch (min. 1")

Ad Appears in Toronto Computes! The Computer Paper and on our website *(Based on 2.2 readers per copy and 130,000 site visits per month)

DEADLINES FOR COMING ISSUES

Issue	June	Book Before	Art Deadline	Distribution
The Computer Paper		Tues Apr 30	Mon May 6	Wed May 15
Toronto Computes!		Wed May 15	Mon May 21	Wed May 29

Category (check one)

- | | | | |
|--|------------------------------------|--|---|
| <input type="checkbox"/> Books/Magazines | <input type="checkbox"/> Games | <input type="checkbox"/> Office Equip. | <input type="checkbox"/> Satellite Dishes |
| <input type="checkbox"/> CD-ROM | <input type="checkbox"/> Hardware | <input type="checkbox"/> PC Computers | <input type="checkbox"/> Services |
| <input type="checkbox"/> Consulting | <input type="checkbox"/> Internet | <input type="checkbox"/> Printers | <input type="checkbox"/> Software |
| <input type="checkbox"/> Employment | <input type="checkbox"/> Macintosh | <input type="checkbox"/> Repairs | <input type="checkbox"/> Wanted |

Issue (check one) ☐ Toronto Computes! ☐ The Computer Paper ☐ Both

SEMI DISPLAY ADVERTISING

Single Semi Display	(1.5" x 1.0")	\$80.25	\$107.00
Medium Semi Display	(1.5" x 1.5")	\$118.47	\$160.50
Double Semi Display	(1.5" x 2.0")	\$149.80	\$187.25

Please send digital files only. A charge of \$30 will apply for work needed on ads sent as camera-ready art (hard copy). All ads must be prepaid by cheque, money order, Visa, Mastercard, or cash (please do not send cash by mail.) Make cheques payable to the designated paper in which your ad will appear. Cheques must be received at least two weeks prior to distribution date.

Submit your ads: E-mail to classified@tcp.ca, FAX to (416) 923-0247
Mail to 625 Church St, Suite 600 Toronto ON, M4Y 2G1
or call Donna Eng at 923-7100 ext. 1206 or 923-4200

CLASSIFIEDS

tfm T.O.'s oldest ISP since 1994

torfree.net

sponsored free dialup graphical internet

best deals for full access accounts from \$5/month

also available solid High Speed DSL with static IP

guest modem dialup 416 645 1999

for more info see www.torfree.net

Onsite. A+ Certified Technician: 416 560-7850.

SavingHosting.com \$1 Web Hosting CanadaWebcenter.com Get website instantly CCCWSP.com

SYSTEM DEVELOPMENT client/server, three tiers, IBM Mainframe and web apps. Oracle, Java, J2EE, Powerbuilder, VB, COBOL, CICS. Reasonable rate. gary_tam@rogers.com (905)887-8346.

WEB DESIGNING, WEB UPDATING and bulk emails done at very reasonable rates. Please call 416.884.9831.

Hosting from webhostcity.com

Reliable Hosting Solutions for your Business

877-446-7195
Open 7 days 9am-12am

www.webhostcity.com

Toronto Computes subscriptions call 416-923-4200

MONITOR REPAIR

PC, MAC All Models & Sizes, TV VCR, Electronics Repair Free Estimate & Low Prices.

Sell Used Monitors (905) 415-8855 (call: 8:30am - 9:30pm)

Ruan Computers & Electronics
107 Telson Rd (North of Steeles and Victoria)

WEB DESIGN www.TorontoWebsites.com 416.876.4009

SOFTWARE

STOCK MARKETS- Analysis & Forecasting Software for TSE, Dow, SP500, Nasdaq, Fax 416 787-1703.

TRAINING

Get yourself MCSE 2000 Certified only in 3 Months GUARANTEED. Contact: (905)673-5495.

INTERNET ABC's CLASSES. Hands-on. 30 topics. T.O. 416-337-2233 www.myinternetclass.com

Register for WEB TRAINING! Basic to intermediate classes (647)282-0710 * www.urbanxchgs.com

WANTED

WANTD used laptops / desktops etc., working / not working, CORPORATE CLIENTS ONLY, Top \$\$ Paid, Free pickup, any quantity, 416-994-8324.

Subscribe Now! **\$17.77 SPECIAL**

Toronto computes!

The most read, most reliable technology publication in North America delivered to your doorstep!

SEE PG 68 FOR MORE INFO!

.com *The classic*

.biz *Means business*

.info *Focus on information*

.ca *Truly Canadian*

.name *It's all about you*

The Choice is Yours!

Now is the perfect time to find a web address that reflects your business or passion. Why wait? With each domain registration, you receive a **FREE web page**, **FREE web forwarding** and **FREE e-mail forwarding** so you can start using your new .com, .biz, .info, .ca or .name domain right away!


Register Today!

www.domainpeople.com/tc

1 604 639 1680

1 877 734 3667



DomainPeople™
a  **NetNation** company

Dell Home

WHEN YOU WEIGH UP THE LATEST TECHNOLOGY,
DELL'S INSPIRON™ 8200 NOTEBOOK WON'T HOLD YOU DOWN.



The Mobile Intel® Pentium® 4 Processor – M offers you power and performance for exceptional notebook mobility.

Mobile Desktop

NEW INSPIRON™ 2650 Notebook

\$1999 or \$60/mo.
48-mos. Purchase Plan*
PLEASE QUOTE WHEN ORDERING:
E Value Code: 71123 CHM4CP5

- Mobile Intel® Pentium® 4 Processor-M at 1.40GHz
- 14.1" XGA TFT Display
- 128MB DDR-SDRAM at 266MHz
- 20GB* Ultra ATA Hard Drive
- Integrated Floppy Drive and 24X CD-ROM
- 8MB DDR 4X AGP GeForce2 Go 100 Video
- Integrated V.92/56K* Modem + 10/100 Ethernet NIC
- Windows XP Home and Works Suite 2002
- 1 Year Express Depot Service*
- Upgrade to 1 Year CompleteCare™ coverage* for \$69*

RECOMMENDED UPGRADES:

- 8X DVD-ROM Add \$100*
- 256MB SDRAM Add \$120*

Superior Desktop Solution

DIMENSION™ 4400 Desktop

\$1199 or \$36/mo.
48-mos. Purchase Plan*
PLEASE QUOTE WHEN ORDERING:
E Value Code: 71123 CHF6CP5

- Intel Pentium 4 Processor at 1.60GHz
- 128MB DDR-SDRAM at 266MHz
- 20GB* Ultra ATA-100 Hard Drive (7200 RPM)
- 17" E771 Monitor (16.0" v.i.s.)
- 16MB ATI Ultra Graphics
- 48X CD-ROM
- Integrated Audio
- Harman Kardon 206 Speakers
- V.90/56K* Modem or 3Com* 10/100 NIC
- Microsoft IntelliMouse*
- Windows XP Home and Works Suite 2002
- 1 Year In-Home Service*
- Upgrade to 3 Year In-Home Service* for \$150*

RECOMMENDED UPGRADES:

- 40GB* Hard Drive Add \$50*
- 256MB DDR-SDRAM at 266MHz Add \$100*

Pinnacle of Performance

NEW INSPIRON 8200 Notebook

\$2499 or \$75/mo.
48-mos. Purchase Plan*
PLEASE QUOTE WHEN ORDERING:
E Value Code: 71123 CHC4CP5

- Mobile Intel Pentium 4 Processor-M at 1.40GHz
- 15" Super XGA* TFT Display
- 256MB DDR-SDRAM at 266MHz, 20GB* Ultra-ATA Hard Drive
- Modular Floppy Drive and Internal 24X CD-ROM
- 32MB DDR 4X AGP NVIDIA GeForce2 Go 3D Video
- Integrated V.92/56K* Modem + 10/100 Ethernet NIC
- Deluxe Nylon Carrying Case
- Windows XP Home and Works Suite 2002
- 1 Year Express Depot Service*
- Upgrade to 1 Year CompleteCare coverage* for \$69*

RECOMMENDED UPGRADES:

- Internal 8X DVD-ROM Add \$100*
- 30GB* Ultra ATA Hard Drive Add \$100*

Cutting-Edge Technology

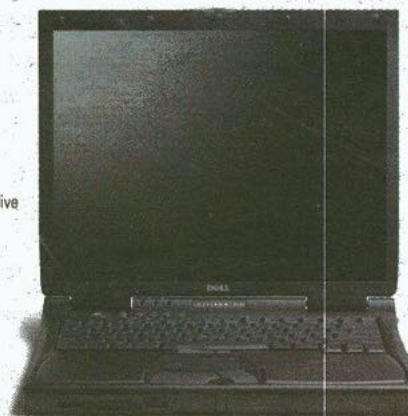
DIMENSION 8200 Desktop

\$1599 or \$48/mo.
48-mos. Purchase Plan*
PLEASE QUOTE WHEN ORDERING:
E Value Code: 71123 CHS8CP5

- Intel Pentium 4 Processor at 1.80GHz
- 128MB RDRAM
- 20GB* Ultra ATA-100 Hard Drive (7200 RPM)
- 17" E771 Monitor (16.0" v.i.s.)
- 64MB GeForce2 MX Graphics with TV Out
- 48X CD-ROM
- SB Live! 1024V Digital Sound
- Harman Kardon 206 Speakers
- V.90/56K* Modem or 3Com 10/100 NIC
- Microsoft IntelliMouse
- Windows XP Home and Works Suite 2002
- 1 Year In-Home Service*
- Upgrade to 3 Year In-Home Service* for \$150*

RECOMMENDED UPGRADES:

- 256MB RDRAM Add \$100*
- 19" M991 Monitor (18.0" v.i.s.) Add \$150*



INTERNET ACCESS INCLUDED WITH ALL HOME SYSTEMS

Modem required for dial-up; NIC required for High Speed or Cable.
Restrictions and conditions apply. See footnote 6.

IT'S POWERFUL MOBILITY

The Mobile Intel® Pentium® 4 Processor-M gives Dell's Inspiron 8200 notebook the latest in mobile technology. This portable notebook features DDR-SDRAM memory at 266MHz for twice the transfer rate of SDRAM for improved graphics over previous mobile processors. Enhanced Intel® SpeedStep™ technology optimizes application performance and power consumption. Deeper Sleep, a dynamic power management mode, helps prolong battery life for sustained performance without the added extra weight of a larger battery.

NEW INSPIRON 2650 NOTEBOOK

For mobility on a budget, check out Dell's Inspiron 2650 notebook – the newest addition to Dell's mobility family. It comes with a new Mobile Intel Pentium 4 Processor-M and boosted graphics for enhanced performance and video.

For power when you need it most, don't forget that Dell Dimension desktops also feature the high performance of Intel Pentium 4 Processors.

NO DOWN PAYMENT
NO MONTHLY PAYMENTS
FOR 90 DAYS*
CALL DELL FOR FULL DETAILS.

ORDER THE EASY WAY@

www.dell.ca

High tech solutions. Easy as **DELL**

1-877-517-6596

MON-FRI 8AM-10PM EST • SAT 10AM-6PM EST • SERVICE IN FRENCH: MON-FRI 8AM-7PM EST • SAT 10AM-6PM EST

DELL PCs USE GENUINE MICROSOFT® WINDOWS®
www.microsoft.com/piracy/howtotell



VISIT
WWW.DELL.CA
FOR EXCLUSIVE
ONLINE OFFERS

All purchases subject to your Customer Agreement or Dell's standard terms of sale, Dell's limited warranty terms and the applicable Dell or third party service agreement. Copies available on request or at www.dell.ca. All promotional offers are subject to cancellation or change at any time without notice. Remember to back-up your data. Dell is not responsible for lost or corrupt data or software. Dell cannot be responsible for errors in typography or photography. 1. SHIPPING AND APPLICABLE TAXES NOT INCLUDED. CURRENT STANDARD SHIPPING CHARGES: \$139 for Dimension, \$119 for Inspiron. Prices and specifications valid in Canada only and subject to error and change without notice. Not combinable with volume or other discounts. Dell reserves the right to limit quantities to five (5) systems per customer. Availability may be limited. Software does not include documentation and may differ from retail version. 2. SHIPPING AND APPLICABLE TAXES NOT INCLUDED. 48-Month Purchase Plan offered through Dell Financial Services Canada, an independent entity, to qualified customers, subject to credit approval and availability. Monthly payments are based on sales prices depicted for a 48-Month term. Full cost of borrowing at an annual rate of 18.99%. Finance example: \$1199 @18.99% per annum interest rate equals \$35.84/month for 48 months. Total payable: \$1720.32. Full cost of borrowing: \$521.32. Terms subject to error and change without notice. 3. For hard drives, GB means 1 billion bytes; total accessible capacity varies depending on operating environment. 4. See Dell's Warranty and SelectCare Services Guide, Dell's limited warranty terms and the applicable Dell or third party Service Contract for service and warranty terms and conditions. Copies available on request or at www.dell.ca. Services may not be available in all areas. In-home service refers to Dell's Next Business Day On-Site service. In-home service may be provided by a third party contract with customer and may not be available in certain areas. TECHNICIAN WILL BE DISPATCHED, IF NECESSARY, FOLLOWING PHONE-BASED TROUBLESHOOTING. Dell must notify the service provider before 4:00 pm local customer time; otherwise it may take an additional business day. CompleteCare coverage only covers internal hardware components and does not cover peripheral devices, damage or loss caused by fire, theft, intentional acts, or by normal wear if the normal wear does not affect performance. 5. Download speeds limited to 53 Kbps. Upload speeds are less (about 30Kbps). Actual speeds may vary by modem manufacturer and line conditions. Analog phone line and compatible server required. 6. All Promotional Internet Access Offers: Limited time offers available to Canadian residents with the purchase of a Dimension or Inspiron computer for home use. To be eligible, you must be within the service area of the Internet service provider you choose; final eligibility for service will be determined by the Internet service provider. You must be a new subscriber and register at time of computer purchase (for AOL must register within 6 months of invoice from Dell). You must accept the Internet service provider's then current terms of service. Promotional period begins upon registration and cancellation must be made during this period in accordance with the Internet service provider's then current terms of service, otherwise service will continue and you will be billed the Internet service provider's then current monthly rate. Contact the Internet service provider for a copy of their then current terms of service. Limit one (1) offer per computer per household. Dell systems must be equipped with a Network Card (Ethernet card) for high-speed access or a modem for dial-up access. Offers not combinable with any other Internet access offers from Dell nor other offers from the respective Internet service providers. For Shaw High Speed, full installation and cable modem is provided. For Rogers Hi-Speed, a \$10 monthly fee may apply to non-cable subscribers. Must have a major credit card to register. Cable modem is provided. Offer not available to employees of the Internet service provider or its affiliates, including persons with whom they are domiciled. For AOL, you must be 18+ and have a major credit card. During six month included membership period, members outside AOL Canada Inc.'s local calling areas may incur telephone charges on their phone bill. Communication surcharges, telephone bill charges, and premium service area charges will apply if you use the services during your six months included AOL membership. See online registration for complete details. AOL is not available for Windows 3.1, Windows NT and Macintosh. AOL is a registered trademark, and the triangular logo, AOL Instant Messenger, Buddy List, Parental Controls and the AOL triangle logo are trademarks of America Online, Inc. For Bell Sympatico High Speed Edition, Service only available to residential customers in Ontario and Quebec where technology permits. Must register by major credit card or pre-authorized payment. Offer applicable to the self-installation option only and does not include the cost to correct any wiring configurations in customer's residence. One time activation fee of \$29.95 is currently waived. Sympatico High Speed Edition is a trade-mark of Bell Canada. For TELUS Velocity® ADSL Internet Service, full installation provided. Installation lead times can vary depending on availability. QuickConnect™ kit purchase required for the self-install option. Price may vary depending on the modem selected. Velocity® and QuickConnect™ are trade-marks owned by TELUS. 7. Offered through Dell Financial Services Canada, an independent entity to qualified business customers, subject to credit approval and availability. 48 month term. No pre-payment option unless where required by law. ™ Dell, the Dell logo, Dimension, Inspiron, and CompleteCare are trademarks of Dell Computer Corporation. ™ Microsoft, MS, Intellimouse, Windows and Windows NT are registered trademarks of Microsoft Corporation. ™ Intel, the Intel Inside Pentium III logo, the Intel Inside Pentium 4 logo, Pentium and SpeedStep are trademarks or registered trademarks of Intel Corporation or its subsidiaries in the United States and other countries. ™ 3Com is a registered trademark of 3Com Corporation. ™ All other trademarks and registered trademarks are the property of their registered holders. © 2002 Dell Computer Corporation. All rights reserved.